```
=> fil hcaplus
FILE 'HCAPLUS' ENTERED AT 14:24:34 ON 21 OCT 2003
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
COPYRIGHT (C) 2003 AMERICAN CHEMICAL SOCIETY (ACS)
```



```
FILE COVERS 1907 - 21 Oct 2003  VOL 139 ISS 17
FILE LAST UPDATED: 20 Oct 2003  (20031020/ED)

 This file contains CAS Registry Numbers for easy and accurate
 substance identification.


=>
=>

=> d stat que l5
L1        15163 SEA FILE=REGISTRY ABB=ON  PLU=ON  GGGF/SQSP
L4           56 SEA FILE=REGISTRY ABB=ON  PLU=ON  L1 AND SQL=4
L5           42 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L4


=>
=>

=> d ibib abs hitrn l5 1-42

L5   ANSWER 1 OF 42  HCAPLUS  COPYRIGHT 2003 ACS on STN
ACCESSION NUMBER:         2003:434299  HCAPLUS
DOCUMENT NUMBER:          139:30773
TITLE:                    Peptides that bind to p185, and methods for the
                          treatment and diagnosis of tumors
INVENTOR(S):              Greene, Mark I.; Murali, Ramachandran; Berezov, Alan
PATENT ASSIGNEE(S):       The Trustees of the University of Pennsylvania, USA
SOURCE:                   PCT Int. Appl., 75 pp.
                          CODEN: PIXXD2
DOCUMENT TYPE:            Patent
LANGUAGE:                 English
FAMILY ACC. NUM. COUNT:   1
PATENT INFORMATION:

     PATENT NO.        KIND  DATE          APPLICATION NO.  DATE
     ---------------   ----  --------      ---------------  --------
     WO 2003045309      A2   20030605      WO 2002-US37390  20021121
         W:  AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
             CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
             GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
             LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH,
             PL, PT, RO, RU, SC, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT,
             TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ,
             MD, RU, TJ, TM
         RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG,
```

CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

US 2003148932 A1 20030807 US 2002-301499 20021121
PRIORITY APPLN. INFO.: US 2001-331935P P 20011121
OTHER SOURCE(S): MARPAT 139:30773

AB Peptides and pharmaceutical compns. comprising them are disclosed. Conjugated peptides linked to detectable agents and/or cytotoxic agents. are disclosed. A method of detecting tumors that have cell-surface p185 is disclosed. Methods of preventing transformation of a normal cell into a tumor cell in an individual at risk of developing a tumor having tumor cells which have p185 on their surfaces are disclosed. Methods of treating an individual who has cancer characterized by tumor cells that have a p185 on their cell surfaces are disclosed.

IT **75853-32-6**
RL: PRP (Properties)
(unclaimed sequence; peptides that bind to p185, and methods for the treatment and diagnosis of tumors)

L5 ANSWER 2 OF 42 HCAPLUS COPYRIGHT 2003 ACS on STN
ACCESSION NUMBER: 2002:849477 HCAPLUS
DOCUMENT NUMBER: 137:348514
TITLE: High throughput screening methods using magnetic resonance imaging agents
INVENTOR(S): Meade, Thomas J.
PATENT ASSIGNEE(S): Metaprobe, Inc., USA
SOURCE: PCT Int. Appl., 71 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002087632	A1	20021107	WO 2002-US14194	20020502

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

US 2002197648 A1 20021226 US 2002-139145 20020502
PRIORITY APPLN. INFO.: US 2001-288963P P 20010502

AB The invention relates to a wide variety of different methods and compns. that find use in high throughput screening applications utilizing magnetic resonance imaging (MRI) contrast agents. The invention provides a library of MRI contrast agents comprising a chelate, a paramagnetic metal ion, and a different candidate agent. The candidate agent may be covalently attached to the chelate, or indirectly attached to the chelate via a linker. Suitable candidate agents include peptides, carbohydrates, nucleic acids and lipids. The methods may be applicable for screening for protease-activated MRI contrast agents, for screening of animals pretreated with a drug candidate, for screening of transgenic animals, for imaging gene expression, for imaging disease progression, etc.

IT **75853-32-6**
RL: PRP (Properties)
(unclaimed sequence; high throughput screening methods using magnetic resonance imaging agents)

REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 3 OF 42 HCAPLUS COPYRIGHT 2003 ACS on STN
ACCESSION NUMBER: 2002:234133 HCAPLUS
DOCUMENT NUMBER: 136:402018
TITLE: Silyl-Substituted Amino Acids: New Routes to the Construction of Selectively Functionalized Peptidomimetics
AUTHOR(S): Sun, Haizhou; Moeller, Kevin D.
CORPORATE SOURCE: Department of Chemistry, Washington University, St. Louis, MO, 63130, USA
SOURCE: Organic Letters (2002), 4(9), 1547-1550
CODEN: ORLEF7; ISSN: 1523-7060
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 136:402018
AB Silylated amino acids have been incorporated into peptides and then converted into N-acyliminium ions with the use of an anodic oxidn. reaction. The result is a method for selectively incorporating conformational constraints or external nucleophiles within the peptide.
IT **429685-03-0**
RL: RCT (Reactant); RACT (Reactant or reagent)
(prepn. of silylated amino acid building blocks for peptides and their conversion into peptidomimetics via anodic oxidn.)
IT **429685-04-1P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of silylated amino acid building blocks for peptides and their conversion into peptidomimetics via anodic oxidn.)
REFERENCE COUNT: 23 THERE ARE 23 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 4 OF 42 HCAPLUS COPYRIGHT 2003 ACS on STN
ACCESSION NUMBER: 2001:78410 HCAPLUS
DOCUMENT NUMBER: 134:147856
TITLE: Preparation of polypeptide dendrimers as unimolecular carriers of diagnostic imaging contrast agents, bioactive substances and drugs
INVENTOR(S): Verdini, Antonio
PATENT ASSIGNEE(S): Italy
SOURCE: PCT Int. Appl., 33 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001007469	A2	20010201	WO 2000-EP7022	20000721
WO 2001007469	A3	20010510		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
EP 1200461	A2	20020502	EP 2000-949393	20000721
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL				

JP 2003506326	T2	20030218	JP 2001-512552		20000721
NZ 517231	A	20030530	NZ 2000-517231		20000721
NO 2002000333	A	20020122	NO 2002-333		20020122
PRIORITY APPLN. INFO.:			IT 1999-FO15	A	19990723
			WO 2000-EP7022	W	20000721

AB The invention describes new polypeptide dendrimers and processes for their synthesis. The polypeptide dendrimers of the invention have a structure which consists of a multifunctional core moiety from which highly branched polypeptide chains, formed by short peptide branching units, extend radially outwards. The outermost branches surround a lower d. space with hollows and channels into which bioactive substances employed in diagnosis and therapy can be entrapped or covalently linked. The said polypeptide dendrimers are particularly useful in a no. of areas in biol. and medicine as carriers for the delivery of bioactive substances, including drugs, or as carriers of bacterial, viral and parasite antigens, gene-therapy compds. and diagnostic imaging contrast agents. N[CH2CH2NHCOCH(CH2Ph)NH-Gly-Gly-Orn-Gly[Gly-Gly-Orn(Boc)-Gly-Boc]2]3 (Boc = tert-butoxycarbonyl) is an example of a polypeptide dendrimer which was synthesized. Various properties of the polypeptide dendrimers were studied, including stability to enzymic hydrolysis in vitro and immunogenicity in mice and its adjuvanticity when some of the NH2 groups are covalently linked to the octapeptide antigen Ala-Asn-Pro-Asn-Ala-Asn-Pro-Asn.

IT **323178-52-5P**

RL: PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)

(prepn. of polypeptide dendrimers as unimol. carriers of diagnostic imaging contrast agents, bioactive substances and drugs)

IT **323178-48-9P 323178-51-4P**

RL: PRP (Properties); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(prepn. of polypeptide dendrimers as unimol. carriers of diagnostic imaging contrast agents, bioactive substances and drugs)

IT **323178-50-3P**

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(prepn. of polypeptide dendrimers as unimol. carriers of diagnostic imaging contrast agents, bioactive substances and drugs)

L5 ANSWER 5 OF 42 HCAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER:	2000:314580 HCAPLUS
DOCUMENT NUMBER:	132:326152
TITLE:	DDS compounds and method for assaying the same
INVENTOR(S):	Susaki, Hiroshi; Inoue, Kazuhiro; Kuga, Hiroshi; Ikeda, Masahiro; Shiose, Yoshinobu; Korenaga, Hiroshi
PATENT ASSIGNEE(S):	Daiichi Pharmaceutical Co., Ltd., Japan
SOURCE:	PCT Int. Appl., 64 pp. CODEN: PIXXD2
DOCUMENT TYPE:	Patent
LANGUAGE:	Japanese
FAMILY ACC. NUM. COUNT:	1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000025825	A1	20000511	WO 1999-JP6016	19991029

W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE,

DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

AU 9964880	A1	20000522	AU 1999-64880		19991029
BR 9915198	A	20010814	BR 1999-15198		19991029
EP 1155702	A1	20011121	EP 1999-952805		19991029
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO					
NO 2001002128	A	20010620	NO 2001-2128		20010430
ZA 2001004214	A	20020114	ZA 2001-4214		20010523
PRIORITY APPLN. INFO.:			JP 1998-310130	A	19981030
			JP 1998-329272	A	19981119
			WO 1999-JP6016	W	19991029

AB The invention relates to a method for assaying a DDS compd. contg. a saccharide compd.-modified carboxy C1-4 alkyldextran polyalc. and a drug compd. [DX8951 or doxorubicin] residue bonded to this carboxy C1-4 alkyldextran polyalc., or a DDS compd. wherein a polymer carrier is bonded to a drug compd. residue via a spacer contg. 2 to 8 amino acids bonded together via peptide bonds, which involves the step of assaying a hydrolyzate obtained by treating the DDS compd. with peptidase.

IT **75853-32-6DP**, DX8951 or doxorubicin conjugates with carboxy C1-4 alkyldextran polyalc. and
RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(DDS compds. and method for assaying the same)

REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 6 OF 42 HCAPLUS COPYRIGHT 2003 ACS on STN

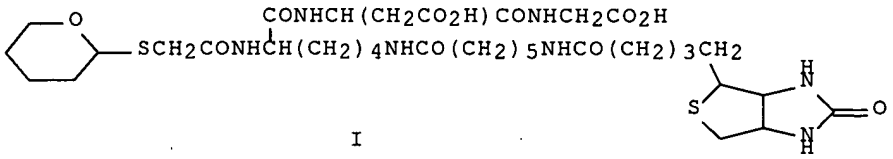
ACCESSION NUMBER: 2000:96022 HCAPLUS
DOCUMENT NUMBER: 132:156840
TITLE: Pretargeted delivery of biotin derivative diagnostic or therapeutic agents.
INVENTOR(S): Gustavson, Linda M.; Theodore, Louis J.; Su, Fu Min; Reno, John M.
PATENT ASSIGNEE(S): Neorx Corp., USA
SOURCE: U.S., 65 pp., Cont.-in-part of U.S. Ser. No. 995,381, abandoned.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 14
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 6022966	A	20000208	US 1993-156565	19931122
US 5283342	A	19940201	US 1992-895588	19920609
WO 9325240	A2	19931223	WO 1993-US5406	19930607
WO 9325240	A3	19940217		
W: CA, JP, US				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
EP 1138334	A2	20011004	EP 2001-201994	19930607
EP 1138334	A3	20020403		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE				
US 5911969	A	19990615	US 1994-329617	19941026
CA 2177136	AA	19950608	CA 1994-2177136	19941122
WO 9515335	A2	19950608	WO 1994-US13485	19941122
WO 9515335	A3	19950720		
W: CA, JP				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
US 5541287	A	19960730	US 1994-345811	19941122
EP 736035	A1	19961009	EP 1995-910066	19941122
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE				

JP 09505831	T2	19970610	JP 1995-515670		19941122
US 5847121	A	19981208	US 1995-571816		19951213
PRIORITY APPLN. INFO.:			US 1992-895588	A2	19920609
			US 1992-995381	B2	19921223
			WO 1993-US5406	A2	19930607
			US 1992-995383	A2	19921223
			EP 1993-915235	A3	19930607
			US 1993-156565	A	19931122
			US 1994-345811	A3	19941122
			WO 1994-US13485	W	19941122

OTHER SOURCE(S): MARPAT 132:156840

GI



I

AB Methods, compds., compns. and kits that relate to pretargeted delivery of diagnostic and therapeutic agents are disclosed. In particular, methods for radiometal labeling of biotin, as well as related compds., are described. One example compd. prepd. was I which was complexed with 99mTc or 186Re.

IT **167861-74-7P 180737-55-7P 180737-56-8P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(pretargeted delivery of biotin deriv. diagnostic or therapeutic agents)

REFERENCE COUNT: 31 THERE ARE 31 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 7 OF 42 HCAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 2000:50615 HCAPLUS

DOCUMENT NUMBER: 133:28087

TITLE: A triglycine linker improves tumor uptake and biodistributions of 67-Cu-Labeled anti-neuroblastoma MAb chCE7 F(ab')2 fragments

AUTHOR(S): Zimmermann, K.; Gianollini, S.; Schubiger, P. A.; Novak-Hofer, I.

CORPORATE SOURCE: Center for Radiopharmaceutical Sciences, Paul Scherrer Institute, Villigen, Switz.

SOURCE: Nuclear Medicine and Biology (1999), 26(8), 943-950
CODEN: NMBIEO; ISSN: 0969-8051

PUBLISHER: Elsevier Science Inc.

DOCUMENT TYPE: Journal

LANGUAGE: English

AB The peptide-linked copper chelators CPTA-triglycyl-l-p-isothiocyanato-phenylalanine (CPTA-R1-NCS) as well as DOTA-triglycyl-l-p-isocyanato-phenylalanine (DOTA-R1-NCS) were synthesized and coupled to F(ab')2 fragments of the anti-neuroblastoma monoclonal antibody (MAb) chCE7. 67Cu-labeled conjugates were compared with the original CPTA- and DO3A-F(ab')2 in vitro and in vivo in mice bearing neuroblastoma xenografts. With the CPTA-R1-F(ab')2, biodistributions were improved, because radioactivity present in the kidney was reduced. With the DOTA-R1-F(ab')2, clearance from the blood was slower and tumor uptake was higher compared with the other conjugates. DOTA-R1-F(ab')2 achieved the best tumor/tissue ratios.

IT **273944-80-2DP**, 67Cu-labeled MAb conjugate **273944-81-3DP**, 67Cu-labeled MAb conjugate

RL: BPR (Biological process); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); PROC (Process); USES (Uses)
(triglycine linker improves tumor uptake and biodistributions of 67-Cu-Labeled anti-neuroblastoma MAb chCE7 F(ab')2 fragments)

REFERENCE COUNT: 28 THERE ARE 28 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 8 OF 42 HCAPLUS COPYRIGHT 2003 ACS on STN
ACCESSION NUMBER: 1999:763905 HCAPLUS
DOCUMENT NUMBER: 132:15631
TITLE: Antitumor or antiinflammatory drug composites
INVENTOR(S): Susaki, Hiroshi; Inoue, Kazuhiro; Kuga, Hiroshi
PATENT ASSIGNEE(S): Daiichi Pharmaceutical Co., Ltd., Japan
SOURCE: PCT Int. Appl., 52 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9961061	A1	19991202	WO 1999-JP2681	19990521
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
CA 2333321	AA	19991202	CA 1999-2333321	19990521
AU 9937333	A1	19991213	AU 1999-37333	19990521
EP 1080732	A1	20010307	EP 1999-919664	19990521
R: BE, CH, DE, FR, GB, IT, LI, NL, SE				
NO 2000005913	A	20010122	NO 2000-5913	20001122

PRIORITY APPLN. INFO.: JP 1998-140915 A 19980522
WO 1999-JP2681 W 19990521

AB Drug composites useful as DDS compds., which are represented by the general formula: A-R-NH-Y-CH2-O-CO-Q (wherein A is a polymer serving as a carrier for a drug; R is a spacer comprising one amino acid mol. or one comprising 2 to 8 amino acid mols. bound to each other through peptide linkage; Y is optionally substituted phenylene; and Q is a residue of a drug compd. such as an antitumor agent). The composites permit the speedy and regioselective release of drug compds. such as antitumor or anti-inflammatory agents, thus exhibiting expected drug effects without fail. A composite of DX-8951 [(1S,9S)-1-Amino-9-ethyl-5-fluoro-2,3-dihydro-9-hydroxy-4-methyl-1H,12H-benzo[de]pyrano[3',4':6,7]indolizino[1,2-b]quinolin-10,13(9H,15H)-dione] was prepd. from DX-8951 methanesulfonic acid salt, dextran polyalc. Na salt, Boc-Gly-Gly-Phe-Gly-OH, 4-aminobenzylalc., and bis(4-nitrophenyl)carbonate.

IT **251459-40-2DP**, reaction products with dextran and acetic acid
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(antitumor or antiinflammatory drug dextran polyalc. conjugates)

IT **251459-34-4**
RL: RCT (Reactant); RACT (Reactant or reagent)
(prepn. of antitumor or antiinflammatory drug dextran polyalc. conjugates)

IT **251459-36-6P 251459-38-8P 251459-40-2DP,**

reaction products with dextran and acetic acid **251459-42-4P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. of antitumor or antiinflammatory drug dextran polyalc. conjugates)
REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 9 OF 42 HCAPLUS COPYRIGHT 2003 ACS on STN
ACCESSION NUMBER: 1998:698781 HCAPLUS
DOCUMENT NUMBER: 130:106984
TITLE: Comparison of 1,4,7,10-tetraazacyclododecane-N,N',N'',N'''-tetraacetic acid (DOTA)-peptide-ChL6, a novel immunoconjugate with catabolizable linker, to 2-iminothiolane-2-[p-(bromoacetamido)benzyl]-DOTA-ChL6 in breast cancer xenografts
AUTHOR(S): DeNardo, Gerald L.; Kroger, Linda A.; Meares, Claude F.; Richman, Carol M.; Salako, Qansy; Shen, Sui; Lamborn, Kathleen R.; Peterson, James J.; Miers, Laird A.; Zhong, Gao Ren; DeNardo, Sally J.
CORPORATE SOURCE: Department of Internal Medicine, School of Medicine, University of California Davis, Sacramento, CA, 95816, USA
SOURCE: Clinical Cancer Research (1998), 4(10), 2483-2490
CODEN: CCREF4; ISSN: 1078-0432
PUBLISHER: American Association for Cancer Research
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Radioimmunotherapy using 131I-ChL6 antibody has shown promise in patients with breast cancer. To enhance this potential, a novel ChL6 immunoconjugate that is catabolizable and tightly binds 90Y and 111In was developed. The immunoconjugate, 1,4,7,10-tetraazacyclododecane-N,N',N'',N'''-tetraacetic acid (DOTA)-peptide-ChL6, consists of the macrocyclic chelator DOTA linked to ChL6 by a peptide that is preferentially catabolized in the liver. The pharmacokinetic and dosimetric properties of the radioimmunoconjugates (RICs) 111In- and 90Y-DOTA-peptide-ChL6 and 111In- and 90Y-2-iminothiolane (2-IT)-2-[p-(bromoacetamido)benzyl]-DOTA-ChL6 were compared in athymic mice bearing HBT3477 human breast cancer xenografts. Each of the RICs was stable in vivo and concd. well in the xenografts. Liver concn., cumulative radioactivity (activity over time), and radiation dose of the DOTA-peptide-ChL6 RICs were one-third to one-half of those of the corresponding 2-IT-2-[p(bromoacetamido)benzyl]-DOTA-ChL6 RICs. Indium-111 RICs were imperfect tracers for corresponding 90Y RICs, although their pharmacokinetics and radiation dosimetries were similar. The results of this study were consistent with previously published in vitro data, which indicated that the peptide linker of DOTA-peptide-ChL6 was catabolized by cathepsin B. The cumulative activities and radiation doses to the liver of DOTA-peptide-ChL6 RICs were one-half of those of corresponding RICs with the 2-IT linker. Preliminary data from pilot studies in patients with breast cancer are in accord with these observations. These novel DOTA-peptide RICs seem to have excellent clin. potential for radioimmunotherapy assocd. with marrow transplantation, for which liver radiation is likely to be dose limiting for 90Y.
IT **219721-93-4D**, radioimmunoconjugate with DOTA and ChL6 antibody
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(comparison of 1,4,7,10-tetraazacyclododecane-N,N',N'',N'''-tetraacetic acid (DOTA)-peptide-ChL6 to 2-iminothiolane-2-[p-(bromoacetamido)benzyl]-DOTA-ChL6 in breast cancer xenografts)
REFERENCE COUNT: 39 THERE ARE 39 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 10 OF 42 HCAPLUS COPYRIGHT 2003 ACS on STN
ACCESSION NUMBER: 1997:164839 HCAPLUS
DOCUMENT NUMBER: 126:141273
TITLE: Carbonic Anhydrase-Inhibitor Binding: From Solution to the Gas Phase
AUTHOR(S): Wu, Qinyuan; Gao, Jinming; Joseph-McCarthy, Diane; Sigal, George B.; Bruce, James E.; Whitesides, George M.; Smith, Richard D.
CORPORATE SOURCE: Environmental Molecular Sciences Laboratory, Pacific Northwest National Laboratory, Richland, WA, 99352, USA
SOURCE: Journal of the American Chemical Society (1997), 119(5), 1157-1158
CODEN: JACSAT; ISSN: 0002-7863
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The binding of para-substituted benzenesulfonamide inhibitors to bovine carbonic anhydrase II (BCAII, EC 4.2.1.1) in the gas phase and in soln. has been studied by electrospray ionization-mass spectrometry and fluorescence spectroscopy, resp. The off-rates of BCAII-inhibitor complexes in soln. are primarily detd. by the hydrophobic interactions between the inhibitor and the enzyme, while their corresponding gas phase stabilities are governed by the polar surface interactions. The results provide insights into the factors governing gas phase stability of the charged complexes, and show that relative stabilities in soln. and the gas phase are substantially different.
IT **176171-19-0**
RL: BPR (Biological process); BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study); PROC (Process)
(carbonic anhydrase-inhibitor binding in soln. and gas phase)

L5 ANSWER 11 OF 42 HCAPLUS COPYRIGHT 2003 ACS on STN
ACCESSION NUMBER: 1996:494751 HCAPLUS
DOCUMENT NUMBER: 125:204516
TITLE: Diagnostic and therapeutic pretargeting methods using metal chelates
INVENTOR(S): Yau, Eric K.; Theodore, Louis J.; Gustavson, Linda M.
PATENT ASSIGNEE(S): Neorx Corporation, USA
SOURCE: U.S., 68 pp., Cont.-in-part of U.S. Ser. No. 156,565,abandoned.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 14
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5541287	A	19960730	US 1994-345811	19941122
US 5283342	A	19940201	US 1992-895588	19920609
EP 1138334	A2	20011004	EP 2001-201994	19930607
EP 1138334	A3	20020403		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE				
US 6022966	A	20000208	US 1993-156565	19931122
US 5911969	A	19990615	US 1994-329617	19941026
US 5847121	A	19981208	US 1995-571816	19951213

PRIORITY APPLN. INFO.:
US 1992-895588 A2 19920609
US 1992-995381 B2 19921223
US 1993-156565 B2 19931122
US 1992-995383 A 19921223
EP 1993-915235 A3 19930607

WO 1993-US5406 A2 19930607
US 1994-345811 A3 19941122

OTHER SOURCE(S): CASREACT 125:204516; MARPAT 125:204516

AB Methods, compds., compns., and kits that relate to pretargeted delivery of diagnostic (e.g. imaging) and therapeutic agents are disclosed. A targeting moiety-antiligand conjugate is administered in vivo; upon target localization of this conjugate (pretargeting) and clearance of the conjugate from the circulation, an active agent-ligand conjugate is parenterally administered,. Alternatively, a targeting moiety-ligand conjugate is administered in vivo; upon target localization and clearance of the conjugate from the circulation, an active agent-antiligand conjugate is parenterally administered. A preferred ligand-antiligand pair is biotin and avidin. Preferred targeting moieties are antibodies, antibody fragments, peptides, hormones, oligonucleotides, and cell surface receptor proteins. Preferred active agents are toxins, antitumor agents, drugs, and radionuclides. In particular, methods for prodn. of low-mol.-wt. radioiodinated biotin derivs., and for radiometal labeling of biotin and related compds. with 99mTc, 186Re, and 188Re by conjugation with a metal-chelating moiety are described. Thus, p-aminobenzyl-1,4,7,10-tetraazacyclododecane-N,N',N",N'"-tetraacetic acid (I) was prepd. in several steps from N-tert-butoxycarbonylglycine p-nitrophenyl ester, ethylenediamine, and N-iodoacetyl-p-nitrophenylalanine using benzotriazolyloxytris(dimethylamino)phosphonium hexafluorophosphate for cyclocondensation; I was then coupled with N-biotinyl-N-methylglycine and complexed with 90Y. The chelate and its sulfoxide radiolysis product bound to avidin.

IT **167861-61-2P 167861-62-3P 167861-74-7P**
180737-51-3P 180737-55-7P 180737-56-8P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(diagnostic and therapeutic pretargeting methods using metal chelates)

L5 ANSWER 12 OF 42 HCAPLUS COPYRIGHT 2003 ACS on STN
ACCESSION NUMBER: 1996:158255 HCAPLUS
DOCUMENT NUMBER: 124:317848
TITLE: Benzenesulfonamide-peptide conjugates as probes for secondary binding sites near the active site of carbonic anhydrase
AUTHOR(S): Sigal, George B.; Whitesides, George M.
CORPORATE SOURCE: Dep. Chem., Harvard Univ., Cambridge, MA, 02138, USA
SOURCE: Bioorganic & Medicinal Chemistry Letters (1996), 6(5), 559-64
CODEN: BMCLE8; ISSN: 0960-894X
PUBLISHER: Elsevier
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Libraries of N-(4-sulfamoylbenzoyl)oligoglycines terminated with different L-amino acids were screened to identify tight binding inhibitors of human carbonic anhydrase II. Inhibitors terminated with hydrophobic amino acids showed significant enhancements in binding compared to the corresponding glycine derivs. No enhancements were obsd. due to polar interactions.

IT **165682-42-8P 176171-07-6P 176171-17-8P**
176171-18-9P 176171-19-0P
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
(prepn. and carbonic anhydrase active side binding of benzenesulfonamide-peptide conjugates)

L5 ANSWER 13 OF 42 HCAPLUS COPYRIGHT 2003 ACS on STN
ACCESSION NUMBER: 1995:795164 HCAPLUS
DOCUMENT NUMBER: 123:225940
TITLE: Pretargeting methods and compounds comprising

radiometal labeled biotin and biotin- or streptavidin-antibody conjugates

INVENTOR(S): Yau, Eric K.; Theodore, Louis J.; Gustavson, Linda M.
PATENT ASSIGNEE(S): Neorx Corp., USA
SOURCE: PCT Int. Appl., 180 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 14
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9515335	A2	19950608	WO 1994-US13485	19941122
WO 9515335	A3	19950720		
W: CA, JP				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
US 6022966	A	20000208	US 1993-156565	19931122
EP 736035	A1	19961009	EP 1995-910066	19941122
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE				
JP 09505831	T2	19970610	JP 1995-515670	19941122

PRIORITY APPLN. INFO.:
US 1993-156565 A 19931122
US 1992-895588 A2 19920609
US 1992-995381 B2 19921223
WO 1993-US5406 A2 19930607
WO 1994-US13485 W 19941122

AB Methods, compds., compns. and kits that relate to pretargeted delivery of diagnostic and therapeutic agents are disclosed. In particular, methods for radiometal labeling of biotin, as well as related compds., are described. Articles of manuf. useful in pretargeting methods are also discussed. In example, 186Re-chelated biotin and biotinylated monoclonal antibody to human colon tumor (NR-LU-10) were prepd. and used in combination with avidin were performed in a 3-step pretargeting protocol in nude mice implanted with human colon tumor xenografts, and a enhanced tumor uptake of 186Re-chelated biotin in the presence of biotinylated antibody and avidin was obsd. Also, streptavidin-NR-LU-10 conjugates were prepd. and used in combination with 186Re-chelated biotin and asialoorosomucoid clearing agent (prepn. described) for two-step pretargeting protocol expt.

IT **167861-61-2P 167861-62-3P 167861-63-4P**
167861-64-5P 167861-74-7P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(radiometal-labeled biotin and conjugates of antibody and biotin or streptavidin in pretargeting method for tumor diagnosis and therapy)

L5 ANSWER 14 OF 42 HCAPLUS COPYRIGHT 2003 ACS on STN
ACCESSION NUMBER: 1995:578931 HCAPLUS
DOCUMENT NUMBER: 123:106470
TITLE: Molecular Dynamics Simulations of H2NSO2C6H4CONH(Gly)3OBn Bound to the Active Site of Human Carbonic Anhydrase II
AUTHOR(S): Chin, Donovan N.; Whitesides, George M.
CORPORATE SOURCE: Department of Chemistry, Harvard University, Cambridge, MA, 02138, USA
SOURCE: Journal of the American Chemical Society (1995), 117(23), 6153-64
CODEN: JACSAT; ISSN: 0002-7863
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English

AB This paper describes stochastic boundary mol. dynamics simulations of a benzyl-terminated oligoglycine inhibitor, H2NSO2C6H4CO(NHCH2CO)3R (SG3Bn),

bound to the active site of human carbonic anhydrase II (HCAII, EC 4.2.1.1) in the presence of water. The position of the terminal benzyloxy group (R = OCH2C6H5) was not defined in a crystal structure of this complex. The simulation suggested that the benzyl group assocd. with the hydrophobic residues Phe-20 and Pro-202 and that this assocn. accounted for the decrease in the value of Kd obsd. for this benzyl-terminated inhibitor relative to other inhibitors with hydrophilic terminal groups. The av. conformation obsd. for the oligoglycines in the inhibitor from the simulation was significantly different from the conformation inferred in the crystal structure. For example, the simulation indicated that the .PSI. angle of Gly-1 and the .PHI. angle of Gly-2 shifted by about 50.degree. from their values in the crystal structure within the first 2.5 ps of the 150 ps simulation. The simulation suggested that the calcd. av. conformation of the oligoglycines in the inhibitor-in its bound state with the protein-was a result of (1) the formation of hydrogen bonds with the surrounding mols. of water (these were included in the simulation) and (2) an accompanying improvement of .pi.-face assocns. with the hydrophobic wall of the protein. These results, and their implications for the design of new inhibitors, are discussed.

IT **165682-42-8**

RL: BPR (Biological process); BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study); PROC (Process)

(mol. dynamics simulations of H2NSO2C6H4CONH(Gly)3OBn bound to active site of human carbonic anhydrase II)

L5 ANSWER 15 OF 42 HCAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 1993:490207 HCAPLUS

DOCUMENT NUMBER: 119:90207

TITLE: Synthesis, metal chelate stability studies, and enzyme digestion of a peptide-linked DOTA derivative and its corresponding radiolabeled immunoconjugates

AUTHOR(S): Li, Min; Meares, Claude F.

CORPORATE SOURCE: Dep. Chem., Univ. California, Davis, CA, 95616-0935, USA

SOURCE: Bioconjugate Chemistry (1993), 4(4), 275-83
CODEN: BCCHES; ISSN: 1043-1802

DOCUMENT TYPE: Journal

LANGUAGE: English

AB By directly coupling a tetrapeptide to DOTA through an amide bond, a novel DOTA deriv., DOTA-glycylglycylglycyl-L-p-nitrophenylalanine amide, was synthesized. This new precursor bifunctional chelating agent was converted to DOTA-glycylglycylglycyl-L-p-isothiocyanatophenylalanine and conjugated to monoclonal antibody Lym-1. Serum stability studies show that the radiolabeled conjugates are kinetically inert under physiol. conditions. The rates of loss of radiometals in human serum are 0.1% per day for In3+, 0.02% per day for Y3, and 0.3% per day for Cu2+-labeled immunoconjugates. In the presence of the liver enzyme cathepsin B, an in vitro digestion of 114mIn-labeled conjugate yields a small fragment contg. 114mIn. Characterization of the cleavage products shows that this liver enzyme hydrolyzes the peptide linkage before the phenylalanine residue, freeing the In-DOTA-triglycine complex from the conjugate. However, the liver enzyme cathepsin D does not cleave the linkage over the span of 7 days.

IT **149226-84-6P**

RL: SPN (Synthetic preparation); PREP (Preparation)

(prepn. and coupling with DOTA)

IT **149206-85-9P**

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(prepn. and trifluoroacetylation of)

L5 ANSWER 16 OF 42 HCAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 1992:470314 HCAPLUS

DOCUMENT NUMBER: 117:70314
TITLE: Simultaneous use of 1-hydroxybenzotriazole and copper(II) chloride as additives for racemization-free and efficient peptide synthesis by the carbodiimide method
AUTHOR(S): Miyazawa, Toshifumi; Otomatsu, Toshihiko; Fukui, Yoshimasa; Yamada, Takashi; Kuwata, Shigeru
CORPORATE SOURCE: Fac. Sci., Konan Univ., Kobe, Japan
SOURCE: International Journal of Peptide & Protein Research (1992), 39(4), 308-14
CODEN: IJPPC3; ISSN: 0367-8377
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 117:70314

AB In the carbodiimide mediated coupling of PhCH2O2C-Gly-L-Val-OH with H-L-Val-OMe in DMF, the simultaneous use of 1-hydroxybenzotriazole (HOBt) and copper(II) chloride as additives was found to give the desired peptide in a high yield without racemization. In the presence of HOBt, reducing the amt. of copper(II) chloride produced a higher yield. Besides improving the coupling efficiency as compared with the case using copper(II) chloride alone as an additive, the present procedure offered another advantage for racemization suppression. Thus, even for the couplings where a low level of racemization was obsd. in the presence of copper(II) chloride, the simultaneous addn. of HOBt and copper(II) chloride resulted in the elimination of racemization. The effectiveness of this new procedure using the two carbodiimide additives in the synthesis of biol. active peptides was assessed by the prepn. of a protected leucine-enkephalin. In the 4 + 1 segment condensation using HOBt and copper(II) chloride simultaneously as additives, no racemization was detected and the yield was high enough. The elimination of racemization and improvement of coupling efficiency produced by the present procedure can be attributable to a reduced tendency for the activated forms of the carboxyl component to form a 5(4H)-oxazolone by the action of HOBt, and to the prevention of racemization by copper(II) chloride of the small amt. of the oxazolone formed which is not eliminated by the action of HOBt alone.

IT **24848-63-3P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and peptide coupling of, with leucine ester, effect of hydroxybenzotriazole and cupric chloride on racemization in)

L5 ANSWER 17 OF 42 HCAPLUS COPYRIGHT 2003 ACS on STN
ACCESSION NUMBER: 1992:17641 HCAPLUS
DOCUMENT NUMBER: 116:17641
TITLE: The specificity of chymotrypsin. A statistical analysis of hydrolysis data
AUTHOR(S): Schellenberger, Volker; Braune, Katrin; Hofmann, Hans Joerg; Jakubke, Hans Dieter
CORPORATE SOURCE: Sekt. Biowiss., Univ. Leipzig, Leipzig, O-7010, Germany
SOURCE: European Journal of Biochemistry (1991), 199(3), 623-36
CODEN: EJBCAI; ISSN: 0014-2956
DOCUMENT TYPE: Journal
LANGUAGE: English

AB From the literature all available quant. data on the chymotrypsin-catalyzed hydrolysis of a series of amino acid and peptide substrates were collected. Utilizing this data base, calcns. were performed on their quant. structure/activity relationship (QSAR). The substrates were considered to be composed of fragments; log(kcat/Km) values for the substrates resulted from additive contribution of their fragments. Despite the fact that the kinetic consts. in the data base were detd. by

different authors under various reaction conditions, the data are well described by the simple additivity model. Obviously, the intrinsic specificity of chymotrypsin dominates the influence of varying reaction conditions.

IT **78682-74-3 135612-66-7**
RL: BPR (Biological process); BSU (Biological study, unclassified); PRP (Properties); RCT (Reactant); BIOL (Biological study); PROC (Process); RACT (Reactant or reagent)
(reaction of, with chymotrypsin, quant. structure-activity relationship study of)

L5 ANSWER 18 OF 42 HCAPLUS COPYRIGHT 2003 ACS on STN
ACCESSION NUMBER: 1991:240639 HCAPLUS
DOCUMENT NUMBER: 114:240639
TITLE: Preparation and activity of controlled-action anesthetic compounds and pharmaceutical compositions containing them
INVENTOR(S): Raynal, Serge; Grousset, Maryse; Rancurel, Alain
PATENT ASSIGNEE(S): Societe Nationale des Poudres et Explosifs, Fr.; Laboratoires Pharmascience
SOURCE: PCT Int. Appl., 33 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: French
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9011292	A2	19901004	WO 1990-FR197	19900323
WO 9011292	A3	19901115		
W: JP, US				
RW: AT, BE, CH, DE, DK, ES, FR, GB, IT, LU, NL, SE				
FR 2644697	A1	19900928	FR 1989-3909	19890324
FR 2644697	B1	19920515		
EP 418365	A1	19910327	EP 1990-905561	19900323
R: AT, BE, CH, DE, DK, ES, FR, GB, IT, LI, LU, NL, SE				

PRIORITY APPLN. INFO.: FR 1989-3909 19890324
WO 1990-FR197 19900323
OTHER SOURCE(S): CASREACT 114:240639; MARPAT 114:240639

AB The title compds. are (poly)amino acid derivs. of aminobenzoic acid-derived anesthetics, i.e. (AA)nN(R)B [B is such that RNHB is an aminobenzoic acid-derived anesthetic; R = H, (un)substituted C1-5 alkyl; AA = .alpha.-amino acid; n = 1-10; with provisions] and their pharmaceutically acceptable salts. Thus, tert-butoxycarbonylalanine (BOC-Ala) was reacted with N-methylmorpholine and isopropenyl chloroformate, and the anhydride formed was further reacted with benzocaine to form BOC-Ala-benzocaine, which was later N-deprotected. In animal tests, when NH2(Gly)p-Phe-benzocaine (I) (p = 0-4) was injected at a molar concn. equiv. to 1% benzocaine, I (p = 0-2) allowed lengthy anesthesia (5-6 h); for I (p = 3, 4), anesthetic activity was const. for 3 h, then abruptly dropped by 50% (i.e. half of the test animals were no longer anesthetized) in 30 min and disappeared totally in 1-1.5 h. When glycine was replaced by alanine in I, similar results were obtained.

IT **133954-78-6**
RL: BIOL (Biological study)
(controlled-action anesthetic)

IT **134002-70-3**
RL: BIOL (Biological study)
(for controlled-action conduction anesthetic)

L5 ANSWER 19 OF 42 HCAPLUS COPYRIGHT 2003 ACS on STN
ACCESSION NUMBER: 1991:192393 HCAPLUS

DOCUMENT NUMBER: 114:192393
TITLE: Release of p-nitroaniline from oligopeptide side chains attached to N-(2-hydroxypropyl)methacrylamide copolymers during incubation with rat intestinal brush border enzymes
AUTHOR(S): Kopeckova, Pavla; Longer, Mark A.; Woodley, John F.; Duncan, Ruth; Kopecek, Jindrich
CORPORATE SOURCE: Dep. Pharm., Univ. Utah, Salt Lake City, UT, 84112, USA
SOURCE: Makromolekulare Chemie, Rapid Communications (1991), 12(2), 101-6
CODEN: MCRCD4; ISSN: 0173-2803
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Rat intestinal brush border enzymes cleaved a terminal p-nitroaniline (NAp) residue from oligopeptide side chains attached to HPMA copolymers. The rate of release showed an approx. 10-fold variation depending on the amino acid compn. and length of the side chain. Longer side chains showed faster rates of NAp release. The results were discussed in terms of designing macromol. drugs which would be activated specifically by brush border membrane enzymes at the mucosal surface and at the same time being resistant to the hydrolysis by laminal enzymes.
IT **61435-98-1**
RL: BIOL (Biological study)
(nitroaniline release from, on incubation with intestinal brush border enzymes)

L5 ANSWER 20 OF 42 HCAPLUS COPYRIGHT 2003 ACS on STN
ACCESSION NUMBER: 1990:441278 HCAPLUS
DOCUMENT NUMBER: 113:41278
TITLE: Gly-L-Phe-OMe, a useful derivatization reagent for chiral separation of N-(benzyloxycarbonyl) amino acids by reversed-phase high-performance liquid chromatography
AUTHOR(S): Yamada, Takashi; Dejima, Koichi; Shimamura, Masao; Miyazawa, Toshifumi; Kuwata, Shigeru
CORPORATE SOURCE: Fac. Sci., Konan Univ., Kobe, 658, Japan
SOURCE: Chemistry Express (1989), 4(11), 725-8
CODEN: CHEXEU; ISSN: 0911-9566
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 113:41278
AB Gly-L-Phe-OMe has been found to be a useful derivatization reagent for chiral sepn. of N-(benzoyloxycarbonyl) amino acids and, thus, of amino acids themselves by reversed-phase HPLC.
IT **47458-92-4**
RL: RCT (Reactant); RACT (Reactant or reagent)
(peptide coupling of, with DL-valine deriv.)

L5 ANSWER 21 OF 42 HCAPLUS COPYRIGHT 2003 ACS on STN
ACCESSION NUMBER: 1990:3104 HCAPLUS
DOCUMENT NUMBER: 112:3104
TITLE: Kinetic analysis of the carboxypeptidase. A hydrolysis of oligopeptides by reversed-phase high-performance liquid chromatography
AUTHOR(S): Serra, M. A.; Aviles, F. X.; Giralt, E.; Cuchillo, C. M.
CORPORATE SOURCE: Fac. Cienc., Univ. Auton. Barcelona, Barcelona, 08193, Spain
SOURCE: Journal of Chromatography (1989), 479(1), 27-37
CODEN: JOCRAM; ISSN: 0021-9673
DOCUMENT TYPE: Journal
LANGUAGE: English

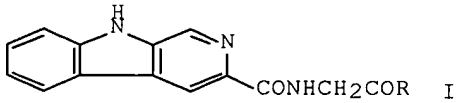
AB A reversed-phase HPLC-based method was developed to follow the time course of the hydrolytic action of pancreatic carboxypeptidase A on oligopeptide substrates of the general formula, benzoyl(glycyl)n-L-phenylalanine, n being in the range 1-5. The proposed procedure was sensitive at the nanomolar level of substrate, but also allowed the kinetics of substrate hydrolysis to be investigated over a wide range of concns. The prior quenching of the carboxypeptidase activity and the use of isocratic conditions for the rapid sepn. of the substrates and their products (in <8 min for the slowest one), allowed the automation of the procedure, which could become an easy and versatile alternative to the commonly used spectrophotometric methods. A comparative evaluation of the use of a spectrophotometric method to measure carboxypeptidase A activity on the same substrates indicated that the latter was not valid for long oligopeptides (n .gtoreq. 2) at concns. of >5 mM owing to an interference of a physicochem. nature. For benzoylglycyl-L-phenylalanine (n = 1), the apparent kinetic parameters were calcd. by means of the HPLC method and by a well established spectrophotometric procedure, and both yielded similar values.

IT **58688-92-9P**

RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)

L5 ANSWER 22 OF 42 HCAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 1987:598895 HCAPLUS
DOCUMENT NUMBER: 107:198895
TITLE: Oligopeptides of .beta.-carboline-3-carboxylic acid. Synthesis and benzodiazepine receptor affinity
AUTHOR(S): Lippke, Klaus Peter; Mueller, Walter E.; Schunack, Walter
CORPORATE SOURCE: Inst. Pharm., Johannes Gutenberg-Univ., Mainz, D-6500, Fed. Rep. Ger.
SOURCE: Archiv der Pharmazie (Weinheim, Germany) (1987), 320(2), 145-53
CODEN: ARPMAS; ISSN: 0365-6233
DOCUMENT TYPE: Journal
LANGUAGE: German
OTHER SOURCE(S): CASREACT 107:198895
GI



I

AB The title compds., e.g., I [R = NHCH2CO2Et, (S)-NHCH(CO2Me)CH2OH, (S)-NHCHMeCO2Me, NHCH2CH2OH], were prepd. and tested for their affinity for the benzodiazepine receptor in mouse brain membranes. Structure activity relationships were detd. Thus, I (R = OH), prepd. from .beta.-carboline-3-carboxylic acid and H2NCH2CO2Me, was treated with H2NCH2CO2Et in DMF contg. carbonyldiimidazole to give I (R = NHCH2CO2Et).

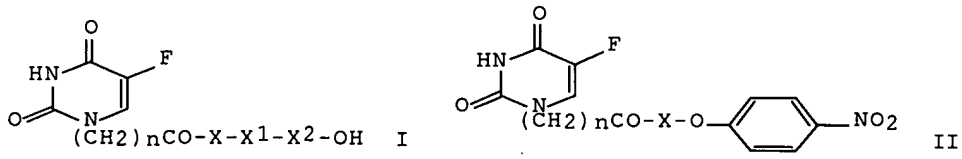
IT **110672-90-7P**

RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. and benzodiazepine receptor affinity of)

L5 ANSWER 23 OF 42 HCAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 1986:573025 HCAPLUS
DOCUMENT NUMBER: 105:173025
TITLE: Synthesis and antitumor activities of 5-fluorouracil oligopeptides
AUTHOR(S): Zhuo, Renxi; Fan, Changlie; Zhao, Rulin

CORPORATE SOURCE: Dep. Chem., Wuhan Univ., Wuhan, Peop. Rep. China
SOURCE: Youji Huaxue (1986), (2), 121-5
CODEN: YCHHDX; ISSN: 0253-2786
DOCUMENT TYPE: Journal
LANGUAGE: Chinese
OTHER SOURCE(S): CASREACT 105:173025
GI



AB 5-Fluorouracil dipeptides I (n = 1, 2, X = null, X1-X2 = Gly-Gly, Gly-Phe; n = 1, X = null, X-X1 = Gly-Leu) were prepd. by coupling active ester II (n = 1 or 2, X = null) with the appropriate dipeptides H-X1-X2-OH in NaOH aq. soln. 5-Fluorouracil tripeptides I (n = 1, X-X1-X2 = Gly-Gly-Phe, Val-Gly-Phe, Val-Leu-Gly; n = 2, X-X1-X2 = Phe-Ala-Gly) were prepd. by coupling II (n, X = same) with the appropriate dipeptides H-X1-X2-OH. I (n = 1, X-X1-X2 = Gly-Gly-Phe, Val-Leu-Gly; n = 2, X = null, X1-X2 = Gly-Phe) showed antitumor activities against Ehrlich ascites carcinoma in mice.

IT **104724-44-9P**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
(prepn. and antitumor activity of)

L5 ANSWER 24 OF 42 HCAPLUS COPYRIGHT 2003 ACS on STN
ACCESSION NUMBER: 1986:6163 HCAPLUS
DOCUMENT NUMBER: 104:6163
TITLE: Racemization-suppressing effect of copper(II) chloride as a new additive in peptide synthesis by the carbodiimide method; application to the synthesis of Leu-enkephalin
AUTHOR(S): Miyazawa, Toshifumi; Otomatsu, Toshihiko; Fukui, Yoshimasa; Yamada, Takashi; Kuwata, Shigeru
CORPORATE SOURCE: Fac. Sci., Konan Univ., Kobe, 658, Japan
SOURCE: Peptide Chemistry (1985), Volume Date 1984, 22nd, 265-70
CODEN: PECHDP; ISSN: 0388-3698
DOCUMENT TYPE: Journal
LANGUAGE: English

AB The effects of CuCl2 on the suppression of racemization in peptide coupling mediated by Me2N(CH2)3N:C:NEt (I) in the presence or absence of 1-hydroxybenzotriazole (HOBt) were evaluated. No racemization occurred in the coupling of PhCH2O2C-Gly-L-Val-OH with H-Val-OMe by I with the addn. of .gtoreq.0.5 equiv of CuCl2; the yield was better than that by the DCC/CuCl2 method, but it was low when compared to the I/HOBt method. The desired peptide was obtained in good yield without racemization when 1 equiv. each of CuCl, and HOBt were added to the I-mediated coupling. The addn. of CuCl2 was applied to the synthesis of Leu-enkephalin. Thus, the I-mediated coupling of Me3CO2C-Tyr(CH2Ph)-Gly-Gly-Phe-OH with H-Leu-OMe in the presence of CuCl2 produced a low level of the undesired epimer, but racemization-free peptide was obtained in good yield when CuCl2 and HOBt were used simultaneously.

IT **24848-63-3**
RL: RCT (Reactant); RACT (Reactant or reagent)
(peptide coupling of, with leucine Me ester by carbodiimide method,

racemization suppression by copper chloride in)

L5 ANSWER 25 OF 42 HCAPLUS COPYRIGHT 2003 ACS on STN
ACCESSION NUMBER: 1984:412062 HCAPLUS
DOCUMENT NUMBER: 101:12062
TITLE: Enzymic cleavage of side chains of soluble polymers
AUTHOR(S): Labsky, Jiri; Mikes, Frantisek
CORPORATE SOURCE: VSCHT, Prague, Czech.
SOURCE: Sbornik Vysoke Skoly Chemicko-Technologicke v Praze, S: Polymery--Chemie, Vlastnosti a Zpracovani (1983), S 9, 279-308
CODEN: SVSZD5; ISSN: 0139-908X
DOCUMENT TYPE: Journal
LANGUAGE: Czech
AB Models were prepd. for the study of release rates of biol. active substances (drugs, hormones, inhibitors, or enzymes) covalently bound to sol. org. polymers after endocytosis and exposure to liposomal hydrolases. Sol. polymers, polymethacrylates or poly(hydroxypropylmethacrylamides) with d.p. 25-30, bound by amide bonds with L-phenylalanylnitroanilides through spacers of variable length and structure (peptides or aliph. chains) were used as carriers. Chymotrypsin [9004-07-3]-catalyzed hydrolysis rates of the C-terminal anilide bonds were correlated with the length and structure of the spacers and the structure of the anilide groups. Steric conditions for the interactions of the spacer chains with chymotrypsin active site and affinity site are discussed.
IT **61435-98-1P 90409-74-8P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and chymotrypsin hydrolysis of, biomols. and drug release in relation to)

L5 ANSWER 26 OF 42 HCAPLUS COPYRIGHT 2003 ACS on STN
ACCESSION NUMBER: 1983:139670 HCAPLUS
DOCUMENT NUMBER: 98:139670
TITLE: Cryokinetic studies of the intermediates in the mechanism of carboxypeptidase A
AUTHOR(S): Galdes, Alphonse; Auld, David S.; Vallee, Bert L.
CORPORATE SOURCE: Cent. Biochem. Biophys. Sci. Med., Harvard Med. Sch., Boston, MA, 02115, USA
SOURCE: Biochemistry (1983), 22(8), 1888-93
CODEN: BICHAW; ISSN: 0006-2960
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The detection and definition of intermediates in reaction pathways, a problem central to delineation of structure-function relations in enzymol., have in general resisted soln. An approach capable of wide application to such studies was developed by employing a combination of cryokinetics and cryospectroscopy as exemplified here by use of carboxypeptidase A. These studies are performed with a low-temp. stopped-flow instrument which also serves as a cryospectrometer. The intermediates are monitored directly through fluorescence generated by radiationless enzyme transfer (RET) between enzyme tryptophans and the dansyl group of enzyme-bound substrate. N-dansylated oligopeptides and their ester analogs exhibit Michaelis-Menten kinetics over the temp. range -20 to +20.degree. with kcat/Km values of (1-3) .times. 107 M-1 s-1 at 20.degree., pH 7.5, and the cryosolvent, aq. 4.5M NaCl, does not alter catalysis. There is no chem. evidence of a covalent acyl-enzyme intermediate for any of the peptide or ester substrates studied. However, concurrent cryospectroscopy shows that peptides and esters form metal-bound intermediates whose spectra differ strikingly from one another and from that of the enzyme alone. The cryokinetic data demonstrate for the 1st time the existence of 2 intermediates during the hydrolysis of both peptides and esters. At -20.degree., the formation, interconversion,

and breakdown of these intermediates results in 3 distinct fluorescence steps during substrate hydrolysis: (1) a rapid increase in signal intensity reflects the formation of the Michaelis complex, ES1, in <15 ms; (2) a slower exponential increase in signal intensity signifies the formation of a 2nd hitherto unknown intermediate, ES2; (3) a slow decrease in signal intensity reflects sepn. of the dansyl product from the enzyme. All rate and equil. consts. for the reaction scheme, E + S .dblarw. ES1 .dblarw. ES2 .fwdarw. E + P, were detd. The reversible interconversion of ES1 and ES2 shows that the C-terminal product is not liberated prior to the rate-limiting step, and hence, deacylation cannot be rate-limiting. The cryokinetic studies in conjunction with the chem. evidence demonstrate that there is no acyl intermediate in either ester or peptide hydrolysis. The present cryokinetics and the concurrent cyrospectroscopy show that peptides and esters form different metal-bound intermediates and that these 2 types of substrates are hydrolyzed through different mechanisms.

IT **37923-00-5**
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with carboxypeptidase A at subzero temp., kinetics of)

L5 ANSWER 27 OF 42 HCAPLUS COPYRIGHT 2003 ACS on STN
ACCESSION NUMBER: 1983:107729 HCAPLUS
DOCUMENT NUMBER: 98:107729
TITLE: Glycosyl esters of amino acids. Part XIV. Peptide bond formation by intermolecular aminolysis of D-glucopyranosyl esters of amino acids
AUTHOR(S): Horvat, Stefica; Keglevic, Dina
CORPORATE SOURCE: Dep. Org. Chem. Biochem., "Rudjer Boskovic" Inst., Zagreb, 41001, Yugoslavia
SOURCE: Carbohydrate Research (1982), 108(1), 89-96
CODEN: CRBRAT; ISSN: 0008-6215
DOCUMENT TYPE: Journal
LANGUAGE: English

AB The reaction of hydroxy (un)protected D-glucopyranosyl esters of N-acyl amino acids with glycine and DL-phenylalanine Me esters in DMF at 37.degree. and dichloromethane at 40.degree., resp., led to rupture of the C-1 ester bond and formation of the corresponding N-acyl dipeptide Me ester. The relative reactivity of the C-1 ester bond toward aminolysis was greatly influenced by the structure of the amino acid nucleophile, the nature of the aglycon side-chain group, and the anomeric configuration of the D-glucopyranosyl ester involved. Evidence for a substantially lower acylating efficiency of the ester at C-2, as compared to that at C-1, was obtained by aminolysis of two fully acetylated 2-O-(acylaminoacyl)-.beta.-D-glucopyranoses. Treatment of 1-O-(glycylglycylglycyl)-.beta.-D-glucopyranose with DL-phenylalanine Me ester in DMF led to parallel hydrolysis and intermol. aminolysis, to give the tripeptide and tetrapeptide Me ester.

IT **84814-48-2P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)

IT **84814-47-1P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of, by aminolysis of acyl amino acid glucopyranosyl ester with amino acid Me ester)

L5 ANSWER 28 OF 42 HCAPLUS COPYRIGHT 2003 ACS on STN
ACCESSION NUMBER: 1981:476069 HCAPLUS
DOCUMENT NUMBER: 95:76069
TITLE: The kinetics of hydrolysis of some extended N-aminoacyl-L-phenylalanine methyl esters by bovine chymotrypsin A.alpha.. Evidence for enzyme subsite S5
AUTHOR(S): Hill, Christopher R.; Tomalin, Geoffrey
CORPORATE SOURCE: Dep. Biochem., Victoria Univ. Manchester, Manchester, M13 9PL, UK

SOURCE: Biochimica et Biophysica Acta (1981), 660(1), 65-72
CODEN: BBACAQ; ISSN: 0006-3002
DOCUMENT TYPE: Journal
LANGUAGE: English

AB A series of N-acetylated peptide Me esters of general formula N-acetyl-(glycyl)n-L-phenylalanine Me ester (n = 0-3) was synthesized to study the effect of varying aminoacyl chain length on the efficiency of chymotrypsin A.alpha. (EC 3.4.21.1) catalyzed ester hydrolysis. Values of kcat and Km for each substrate were obtained from kinetic measurements at pH 8.00 and 25.0.degree.. For the 1st 3 members of the series (n = 0-2) there is an increase in kcat value as the aminoacyl chain length is increased. However, the kinetic consts. for the 3rd (n = 2) and 4th (n = 3) members of the series were very similar. These results are consistent with a substrate binding scheme proposed for the isomeric enzyme chymotrypsin A.gamma.. The enzyme-catalyzed reactions were also investigated over a range of temp. (15-35.degree.). In each case the Arrhenius law was obeyed, within exptl. error, and evaluation of meaningful values for the thermodn. functions of activation (.DELTA.H.thermod. and .DELTA.S.thermod.) was possible with certain assumptions. In contrast to the similarity of kinetic consts. found for the 3rd and 4th members of the substrate series, the corresponding values of .DELTA.H.thermod. and .DELTA.S.thermod. were markedly different. These results, together with those for the 1st 2 members of the series are interpreted in terms of a model binding system which is consistent with the existence of further enzyme subsites in the S4-S5 region.

IT **33374-78-6P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and deprotection of)

IT **78682-72-1P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and peptide coupling reaction of)

IT **78682-74-3**
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with chymotrypsin A.alpha., kinetics of)

L5 ANSWER 29 OF 42 HCAPLUS COPYRIGHT 2003 ACS on STN
ACCESSION NUMBER: 1981:1489 HCAPLUS
DOCUMENT NUMBER: 94:1489
TITLE: Influence of structural changes in small peptides on their inhibition of papain
AUTHOR(S): Ackerman, Louis G. J.; Pretorius, Helena E.; Van Wyk, Pieter J.; Vogelzang, Marion E.
CORPORATE SOURCE: Natl. Food Res. Inst., CSIR, Pretoria, 0001, S. Afr.
SOURCE: South African Journal of Chemistry (1980), 33(3), 95-9
CODEN: SAJCDG; ISSN: 0379-4350
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Several peptides and peptide derivs. were synthesized and their inhibition towards papain detd. From the amino acid sequence of the peptides which act as inhibitors, a further hydrophobic interaction point in the active center is postulated.

IT **75853-32-6**
RL: BIOL (Biological study)
(papain inhibition by, active site structure in relation to)

L5 ANSWER 30 OF 42 HCAPLUS COPYRIGHT 2003 ACS on STN
ACCESSION NUMBER: 1980:617111 HCAPLUS
DOCUMENT NUMBER: 93:217111
TITLE: Aeromonas neutral protease: specificity toward extended substrates
AUTHOR(S): Bayliss, Mary E.; Wilkes, Stella H.; Prescott, John M.

CORPORATE SOURCE: Dep. Biochem. Biophys., Texas A and M Univ., College Station, TX, 77843, USA
SOURCE: Archives of Biochemistry and Biophysics (1980), 204(1), 214-19
CODEN: ABBIA4; ISSN: 0003-9861
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Kinetic measurements on the action of Aeromonas neutral protease toward blocked peptide substrates were made in order to det. the most favorable fit on the enzyme subsites that bind the residues flanking the scissile bond and to define the no. of secondary sites involved in catalysis. Variations in the identity of P1', the residue furnishing the amino group to the scissile bond, produced significant changes in kcat, whereas the identity of P1, the residue donating the carboxyl group, was of much less catalytic importance. Comparison of these results with those of previous investigators of the bacterial neutral proteases indicated distinct differences in specificity of the Aeromonas enzyme and revealed that phenylalanyl residues, rather than leucyl, were preferred in the P1' position. Addnl. binding sites on the carboxyl side of the scissile bond were shown to be important to catalytic efficiency, and it is evident that .gtoreq.3 residues (P1', P2', P3') are involved, whereas only 2 residues (P2, P1) on the N-terminal side of the sensitive bond are implicated.

IT **75501-77-8**
RL: BIOL (Biological study)
(neutral protease of Aeromonas specificity for)

L5 ANSWER 31 OF 42 HCAPLUS COPYRIGHT 2003 ACS on STN
ACCESSION NUMBER: 1980:501418 HCAPLUS
DOCUMENT NUMBER: 93:101418
TITLE: Degradation of side chains of N-(2-hydroxypropyl)methacrylamide copolymers by lysosomal enzymes
AUTHOR(S): Duncan, Ruth; Lloyd, John B.; Kopecek, Jindrich
CORPORATE SOURCE: Dep. Biol. Sci., Univ. Keele, Keele/Staffordshire, ST5 5BG, UK
SOURCE: Biochemical and Biophysical Research Communications (1980), 94(1), 284-90
CODEN: BBRCA9; ISSN: 0006-291X
DOCUMENT TYPE: Journal
LANGUAGE: English

AB A series of 22 N-(2-hydroxypropyl)methacrylamide copolymers, each contg. a different, potential degradable side chain, were incubated with rat liver tritosomes. Four of the side chains were digestible as judged by the liberation of a terminal 4-nitroaniline residue. The pH optimum for the degrdn. of the side chain -.epsilon.-aminocaproyl-phenylalanyl-4-nitroanilide was in the range 5.75-6.5 over the first hour of incubation and somewhat lower (pH 5.5-6.0) after this time. The degrdn. of the above side chain had a Km value of 58.3 mg/mL. The use of these compds. as drug carrier mols. is discussed.

IT **74569-71-4DP**, reaction products with N-(hydroxypropyl)methacrylamide-methacrylamide copolymers
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. and degrdn. of, by lysosomal enzymes, drug carrier in relation to)

L5 ANSWER 32 OF 42 HCAPLUS COPYRIGHT 2003 ACS on STN
ACCESSION NUMBER: 1980:495630 HCAPLUS
DOCUMENT NUMBER: 93:95630
TITLE: N-Acylated phenylalanine p-nitroanilides: new substrates for chymotrypsin
AUTHOR(S): Kasafirek, Evzen; Bartik, Michal
CORPORATE SOURCE: Res. Inst. Pharm. Biochem., Prague, 130 60/3, Czech.
SOURCE: Collection of Czechoslovak Chemical Communications

(1980), 45(2), 442-51
CODEN: CCCCAK; ISSN: 0366-547X
DOCUMENT TYPE: Journal
LANGUAGE: English
AB R-Phe-NHC6H4NO2-p (R = Ac, HO2CCH:CHCO, MeOCH2CH2OCH2CO, HOCH2CO, H-Gly), H-Gly-Tyr-NHC6H4NO2-p, HO2CCH2CH2CO-X-Phe-NHC6H4NO2-4 (I; X = Gly, Gly-Gly, Gly-Gly-Gly), HO2CCH2CH2CO-X-Tyr-NHC6H4NO2-p (II; X = null, Gly, Gly-Gly), and Ac-His-Gly-Gly-Phe-NHC6H4NO2-p (III) were prepd. as substrates for chymotrypsin. Kinetic data for the cleavage of the above nitroanalides by chymotrypsin showed that the greatest kcat values were obtained for I (X = Gly-Gly) and II (X = Gly-Gly), and III produced the smallest Km value.
IT **74578-54-4P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and deblocking of)
IT **74569-71-4P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)
IT **67877-92-3P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of, as substrate for chymotrypsin)

L5 ANSWER 33 OF 42 HCAPLUS COPYRIGHT 2003 ACS on STN
ACCESSION NUMBER: 1978:575672 HCAPLUS
DOCUMENT NUMBER: 89:175672
TITLE: Modulation of the catalytic properties of .alpha.-chymotrypsin by chemical modification at Tyr 146
AUTHOR(S): Gorecki, Marian; Wilchek, Meir; Blumberg, Shmaryahu
CORPORATE SOURCE: Dep. Chem., Weizmann Inst. Sci., Rehovot, Israel
SOURCE: Biochimica et Biophysica Acta (1978), 535(1), 90-9
CODEN: BBACAQ; ISSN: 0006-3002
DOCUMENT TYPE: Journal
LANGUAGE: English
AB .alpha.-Chymotrypsin was modified with 3 different diazonium salts derived from D-phenylalanine. All 3 reagents reacted selectivity with tyrosine-146 on the surface of the enzyme. The spectral and enzymic properties of the azochymotrypsins were characteristic for each of the proteins. Depending on the structure of the reagent used for modification, the activity towards p-nitroanilide substrate was higher or about the same as that of the native enzyme.
IT **67877-92-3**
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with azochymotrypsin, kinetics of)

L5 ANSWER 34 OF 42 HCAPLUS COPYRIGHT 2003 ACS on STN
ACCESSION NUMBER: 1977:13107 HCAPLUS
DOCUMENT NUMBER: 86:13107
TITLE: Enzymic cleavage of side chains of synthetic water-soluble polymers
AUTHOR(S): Drobnik, J.; Kopecek, J.; Labsky, J.; Rejmanova, P.; Exner, J.; Saudek, V.; Kalal, J.
CORPORATE SOURCE: Inst. Macromol. Chem., Czech. Acad. Sci., Prague, Czech.
SOURCE: Makromolekulare Chemie (1976), 177(10), 2833-48
CODEN: MACEAK; ISSN: 0025-116X
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Water-sol. copolymers based on poly[N-(2-hydroxypropyl)methacrylamide] and bearing in their side chains a chromogenic substrate for chymotrypsin (EC 3.4.4.5) were prepd. by direct copolymn. or polymeranalogous reaction. The substrate was L-phenylalanine-4'-nitroanilide linked by its amino

group to the terminal carboxylic group of the side chain. The cleavage of the substrate thus bonded, was expressed by means of the Michaelis const., the max. velocity of the percentage of substrate unit accessible to the enzyme. The effect of length and chem. structure of the side chain was investigated in the first place. It was found that the chain must be longer than 6 atoms; longer chains are generally more favorable for this cleavage. The .epsilon.-aminocaproyl group provides a chain that is most favorable for the cleavage, whereas chains with several glycine units, though longer, are less favorable. Polymers with higher content of the substrate units undergo cleavage more readily.

IT **61435-98-1P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and enzymic hydrolysis of)

IT **61435-72-1P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)

L5 ANSWER 35 OF 42 HCAPLUS COPYRIGHT 2003 ACS on STN
ACCESSION NUMBER: 1976:101503 HCAPLUS
DOCUMENT NUMBER: 84:101503
TITLE: Bovine procarboxypeptidase A: kinetics of peptide and ester hydrolysis
AUTHOR(S): Bazzone, Thomas J.; Vallee, Bert L.
CORPORATE SOURCE: Dep. Biol. Chem., Harvard Med. Sch., Boston, MA, USA
SOURCE: Biochemistry (1976), 15(4), 868-75
CODEN: BICHAW; ISSN: 0006-2960
DOCUMENT TYPE: Journal
LANGUAGE: English

AB The kinetics of hydrolysis of a series of peptide and ester substrates by native procarboxypeptidase was examd. in detail in order to ascertain the extent to which the binding and catalytic sites of carboxypeptidase preexist in the zymogen. Distinct differences in the substrate binding sites of the zymogen compared to those of the enzyme are apparent from their resp. kinetic profiles as well as from the effects of modifiers on their activities. Substrate activation with the dipeptides BzGly-L-Phe and CbzGly-L-Phe, well known for carboxypeptidase, was exhibited also by the zymogen, but the corresponding substrate inhibition by CbzGly-L-Phe and BzGly-OPhe was absent. Moreover, the substrate inhibition of carboxypeptidase by CbzGlyGly-L-Phe and BzGly-OPhe was replaced by substrate activation in the zymogen. Benzoylglycine and cyclohexanol, potent modifiers of carboxypeptidase hydrolysis of peptides, barely affected the corresponding zymogen activities. Addnl., .beta.-phenylpropionate, a noncompetitive inhibitor of carboxypeptidase hydrolysis of peptides, competitively inhibited zymogen peptidase activity. Metal removal and substitution of Co for Zn in the zymogen resulted in effects on activity similar to those for carboxypeptidase, indicating that this component of the catalytic site is relatively unchanged in the process of zymogen activation. On the other hand, the pH dependence of peptidase activity and CO2H group modification both indicate an altered environment and reactivity for the catalytically essential CO2H group of Glu-270, consistent with the reduced catalytic efficiency of the zymogen. However, since the hydrolytic efficiency of the zymogen relative to the enzyme varies widely with substrate compn., the difference in CO2H group reactivity cannot account entirely for the obsd. differences in kinetic behavior of the zymogen and enzyme. Thus, while the essential features of the binding and catalytic sites of carboxypeptidase preexist in the zymogen, activation results in alterations in both of these active site components to generate the ultimate specificity and capacity of the enzyme.

IT **24848-63-3 58688-92-9**
RL: RCT (Reactant); RACT (Reactant or reagent)
(hydrolysis of, kinetics of enzymic)

L5 ANSWER 36 OF 42 HCAPLUS COPYRIGHT 2003 ACS on STN
ACCESSION NUMBER: 1972:498334 HCAPLUS
DOCUMENT NUMBER: 77:98334
TITLE: Distance measurements at the active site of carboxypeptidase A during catalysis
AUTHOR(S): Latt, S. A.; Auld, D. S.; Vallee, B. L.
CORPORATE SOURCE: Dep. Biol. Chem., Harvard Med. Sch., Boston, MA, USA
SOURCE: Biochemistry (1972), 11(16), 3015-22
CODEN: BICHAW; ISSN: 0006-2960
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Both native Zn carboxypeptidase A and the Co-substituted deriv. rapidly hydrolyze 2 new series of peptides, dansyl-(Gly)n-L-Phe(n = 1, 2, 3, 4) and dansyl-(Gly)n-L-Trp (n = 1, 2, 3). In conjunction with Co carboxypeptidase these substrates simultaneously afford measurements of kinetic parameters and of distances within and topographical features of the enzyme active center. For Zn carboxypeptidase, values of kcat range from 4 .times. 101 to 1 .times. 104 min-1 and values of Km from 8 .times. 10-5 to 1 .times. 10-3M. For the Co enzyme, the corresponding kcat values are 1.5-4 times higher and the Km values are .apprx.0.5 lower. Distance measurements are based on electronic energy transfer. The dansyl group serves both as an acceptor of tryptophanyl excitation energy and as its donor to the Co atom in a tryptophan-dansyl-Co energy-relay system. Energy transfer between enzyme tryptophanyl residues and substrate dansyl groups rapidly identifies the formation and breakdown of enzyme-substrate complexes. Subsequent transfer of energy from the bound dansyl group to the Co atom allows calcn. of the distance between these moieties when dipole-dipole resonance computed in this manner increase systematically from <8 .ANG. for the dipeptides to .apprx.15 .ANG. for the pentapeptides. The values for corresponding members of the phenylalanyl and tryptophanyl series of substrates are in good agreement with each other. They also compare favorably to distances estd. from mol. models assuming an extended peptide to interact with the Co atom at the carbonyl O of the bond to be split. The measurement of catalysis related distances in other enzyme active centers should be possible through the incorporation of suitable spectrochem. probes into both the substrate and the enzyme.

IT **37923-00-5**
RL: BIOL (Biological study)
(reaction with carboxypeptidase A, kinetics of)

L5 ANSWER 37 OF 42 HCAPLUS COPYRIGHT 2003 ACS on STN
ACCESSION NUMBER: 1971:498805 HCAPLUS
DOCUMENT NUMBER: 75:98805
TITLE: Peptides with terminal tyrosyl and phenylalanyl groups
AUTHOR(S): Skorcz, Joseph A.
CORPORATE SOURCE: Lakeside Lab., Colgate-Palmolive Co., Milwaukee, WI, USA
SOURCE: Journal of Medicinal Chemistry (1971), 14(8), 775-6
CODEN: JMCMAR; ISSN: 0022-2623
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Three tripeptides and a pentapeptide contg. both N-terminal L-tyrosyl and C-terminal L-phenylalanyl groups, were prepd. for general cardiovascular evaluation in dogs. Only 1-L-tyrosylamino-1-cyclopentyl-L-phenylalanine acetate at 1 mg/ kg, i.v., caused a marked, transient decrease in blood pressure, but did not inhibit angiotensin-induced contractions of the isolated rat uterus at concns. up to 10 .mu.g/ml.

IT **33374-78-6P 33492-41-0P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)

L5 ANSWER 38 OF 42 HCAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 1970:474039 HCAPLUS
DOCUMENT NUMBER: 73:74039
TITLE: Bacterial utilization of oligopeptides containing .beta.-2-thienylalanine and phenylalanine
AUTHOR(S): Smith, Robert Lewis; Dunn, Floyd W.
CORPORATE SOURCE: Coll. of Basic Bed. Sci., Univ. of Tennessee, Memphis, TN, USA
SOURCE: Journal of Biological Chemistry (1970), 245(11), 2962-6
CODEN: JBCHA3; ISSN: 0021-9258
DOCUMENT TYPE: Journal
LANGUAGE: English

AB A series of tetrapeptides including triglycyl-DL-phenylalanine, DL-phenylalanyltriglycine, triglycyl-.beta.-2-thienyl-DL-alanine, and .beta.-2-thienyl-DL-alanyltriglycine was synthesized by conventional methods. The 2 pentapeptides L-phenylalanyltetraglycine and .beta.-2-thienyl-L-alanyltetraglycine were syntesized by a solid phase method. The peptides were tested for their capacity to influence the growth of a wild strain of Escherichia coli. The 2 tetrapeptides contg. .beta.-2-thienylalanine were good inhibitors of E. coli growth in basal medium; however, the pentapeptide was inhibitory only at relatively high concns. The 2 tetrapeptides contg. phenylalanine were more efficient in reversing the growth inhibitory effects of .beta.-2-thienylalanine than was free phenylalanine, but the pentapeptide L-phenylalanyltetraglycine stimulated E. coli growth only at high concns. in the presence of .beta.-2-thienylalanine. When E. coli growth was dependent upon the presence of either DL-phenylalanyltriglycine or triglycyl-DL-phenylalanine, the analogous .beta.-2-thienylalanine in inhibiting E. coli growth. The results show that the growth of a wild strain of E. coli is influenced by several tetrapeptides contg. either phenylalanine or .beta.-2-thienylalanine. However, 2 pentapeptides were relatively ineffective, probably because of severely limited transport of these larger mols. into the cells.

IT **25894-99-9**
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(metabolism of, by Escherichia coli)

L5 ANSWER 39 OF 42 HCAPLUS COPYRIGHT 2003 ACS on STN
ACCESSION NUMBER: 1970:18693 HCAPLUS
DOCUMENT NUMBER: 72:18693
TITLE: Pyridyl esters of peptides as synthetic substrates of pepsin
AUTHOR(S): Sachdev, Goverdhan P.; Fruton, Joseph S.
CORPORATE SOURCE: Yale Univ., New Haven, CT, USA
SOURCE: Biochemistry (1969), 8(11), 4231-8
CODEN: BICHAW; ISSN: 0006-2960
DOCUMENT TYPE: Journal
LANGUAGE: English

AB The synthesis of a series of new pepsin substrates of the type A-Phe-Phe-B is described, in which B is a pyridylalkyloxy group, A is benzyloxycarbonyl (Z), Z-Gly, or Z-Gly-Gly, and the Phe-Phe linkage is the only pepsin-sensitive bond. In their cationic form, these compds. are moderately sol. in aq. soln. at pH 2-4, and some of the compds. (e.g., with A = Z-Gly-Gly) are among the most sensitive synthetic substrates hitherto found for pepsin. The detn. of the kinetic parameters for their enzymic hydrolysis has shown that changes in the structure of the A and B groups of A-Phe-Phe-B may have very large effects on the value of kcat (.apprx.500-fold change) with only small accompanying changes in the value of KM. These kinetic data emphasize the importance, for the kinetic specificity of pepsin, of interactions between the A or B groups of the substrate with enzymic loci that are relatively distant from the site of catalytic action, and are consistent with the possibility that such

secondary interactions may alter the conformation of catalytically important groups in the enzyme so as to alter greatly the efficiency of catalysis.

IT **26108-22-5**
RL: BIOL (Biological study)
(as pepsin substrate)

L5 ANSWER 40 OF 42 HCAPLUS COPYRIGHT 2003 ACS on STN
ACCESSION NUMBER: 1965:52017 HCAPLUS
DOCUMENT NUMBER: 62:52017
ORIGINAL REFERENCE NO.: 62:9233h,9234a
TITLE: Synthesis of polypeptides with known repeating sequence of amino acids
AUTHOR(S): Kovacs, J.; Kapoor, A.
CORPORATE SOURCE: St. John's Univ., New York, NY
SOURCE: Journal of the American Chemical Society (1965), 87(1), 118-19
CODEN: JACSAT; ISSN: 0002-7863
DOCUMENT TYPE: Journal
LANGUAGE: English

AB cf. Pless and Boissonas, Helv. Chim. Acta 46, 1609-25(1963). Polypeptides with known repeating sequence of amino acids were prepd. from pentachlorophenyl active esters. Thus were prepd. poly(.alpha.-L-glutamyl-L-alanyl-L-glutamic acid) (mol. wt. 20,000), poly(glycylglycyl-L-phenylalanine), and poly(.gamma.-L-glutamyl-.gamma.-aminobutyric acid).

IT **3017-43-4**, 1,4,7,10-Tetraazacyclododecane-2,5,8,11-tetrone, 3-benzyl-
(prepn. of)

L5 ANSWER 41 OF 42 HCAPLUS COPYRIGHT 2003 ACS on STN
ACCESSION NUMBER: 1965:52016 HCAPLUS
DOCUMENT NUMBER: 62:52016
ORIGINAL REFERENCE NO.: 62:9233g-h
TITLE: Cyclization of glycyl-phenylalanine tetrapeptides
AUTHOR(S): Morozova, E. A.; Ionova, L. V.; Drobinskaya, N. A.
CORPORATE SOURCE: M. V. Lomonosov State Univ., Moscow
SOURCE: Zhurnal Obshchei Khimii (1964), 34(12), 3888-90
CODEN: ZOKHA4; ISSN: 0044-460X
DOCUMENT TYPE: Journal
LANGUAGE: Russian

AB Heating the tetrapeptides (Phe-Gly-Gly-Gly, decompd. 198-201.degree.; Gly-Phe-Gly-Gly, decompd. 185-6.degree.; Gly-Gly-Phe-Gly, decompd. 204-5.degree.; Gly-Gly-Gly-Phe, decompd. 195-7.degree.) in MeOH with 10-fold excess EtOC:CH 12 hrs. at 70.degree. and keeping the mixt. overnight at room temp. gave after evapn. and electrophoretic sepn. on cellulose powder in 30% AcOH, the following cyclotetrapeptides: cyclo-(Phe-Gly-Gly-Gly), decompd. 250-300.degree.; cyclo-(Gly-Phe-Gly-Gly), decompd. 250-300.degree.; cyclo-(Gly-Gly-Phe-Gly), decompd. 250-300.degree.; cyclo-(Gly-Gly-Gly-Phe), decompd. 250-300.degree.; the yields were 17%, 9.25%, 10.6%, and 23.4%, resp. The products were characterized by partial hydrolysis in hot aq. LiOH 15 min. The mol. wts. of the cyclopeptides were checked by isothermal distn. with HCO2H.

IT **3017-43-4**, 1,4,7,10-Tetraazacyclododecane-2,5,8,11-tetrone, 3-benzyl-
(prepn. of)

L5 ANSWER 42 OF 42 HCAPLUS COPYRIGHT 2003 ACS on STN
ACCESSION NUMBER: 1964:469405 HCAPLUS
DOCUMENT NUMBER: 61:69405
ORIGINAL REFERENCE NO.: 61:12079d-g
TITLE: Synthesis of glycyl-leucine and glycyl-phenylalanine tetrapeptides
AUTHOR(S): Ionova, L. V.; Morozova, E. A.; Pliner, S. A.;

Drobinskaya, N. A.
SOURCE: Vestnik Moskovskogo Universiteta, Seriya 2: Khimiya (1964), 19(4), 85-9
CODEN: VMUKA5; ISSN: 0579-9384
DOCUMENT TYPE: Journal
LANGUAGE: Unavailable

AB A series of Me esters of acyl peptides was prepd. by reaction of the Me ester of an amino acid or peptide with a carbobenzoxylated (Z = PhCH2O2C) amino acid or peptide. The peptide bond was formed by the mixed anhydride method. Sapon. of the acyl peptide ester led to the corresponding carbobenzoxylated peptide acid. Redn. of the Z group with H and Pd catalyst in the presence of 1 equiv. HOAc gave the free peptide. Thus prepd. were Z-Gly-Gly-Leu(OMe), m. 124.degree.; Z-Gly-Gly-Leu(OH), m. 175-6.degree.; Z-Gly-Gly-Phe(OMe).0.5H2O, m. 96-7.degree.; Z-Gly-Gly-Phe(OH), m. 143-4.degree.; Z-Gly-Gly-Gly-Leu(OMe), m. 150-5.degree.; Z-Gly-Gly-Gly-Leu(OH), m. 176-8.degree.; H-Gly-Gly-Gly-Leu(OH), m. 206-7.degree.; Z-Gly-Gly-Leu-Gly(OMe), m. 123-6.degree.; Z-Gly-Gly-Leu-Gly(OH), m. 150-2.degree.; H-Gly-Gly-Leu-Gly(OH).3H2O, m. 172-5.degree.; Z-Gly-Leu-Gly-Gly(OMe), m. 89-94.degree.; Z-Gly-Leu-Gly-Gly(OH), m. 178-80.degree.; H-Gly-Leu-Gly-Gly(OH).0.5H2O, m. 166-70.degree.; Z-Gly-Gly-Gly-Phe(OMe), m. 114-16.degree.; Z-Gly-Gly-Gly-Phe(OH), m. 167-8.degree.; H-Gly-Gly-Gly-Phe(OH).0.5H2O, m. 195-7.degree.; Z-Gly-Gly-Phe-Gly(OMe), m. 101.degree.; Z-Gly-Gly-Phe-Gly(OH), m. 120.degree.; H-Gly-Gly-Phe-Gly(OH).1.5H2O, m. 204-5.degree.; Z-Gly-Phe-Gly-Gly(OMe), m. 124-6.degree.; Z-Gly-Phe-Gly-Gly(OH), m. 152-4.degree.; H-Gly-Phe-Gly-Gly.1.5H2O, m. 185-6.degree.; Z-Phe-Gly-Gly-Gly(OMe).1.5H2O, m. 171-2.degree.; Z-Phe-Gly-Gly-Gly(OH), m. 137-9.degree.; H-Phe-Gly-Gly-Gly(OH).1.5H2O, m. 198-201.degree.. The Rf values for the free peptides were given.

IT **24848-63-3**, Alanine, N-[N-[N-(N-carboxyglycyl)glycyl]glycyl]-3-phenyl-, N-benzyl ester **33374-78-6**, Alanine, N-[N-[N-(N-carboxyglycyl)glycyl]glycyl]-3-phenyl-, N-benzyl Me ester **75853-32-6**, Alanine, N-[N-(N-glycylglycyl)glycyl]-3-phenyl- (prepn. of)

=>
=> fil reg
FILE 'REGISTRY' ENTERED AT 14:24:54 ON 21 OCT 2003
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 20 OCT 2003 HIGHEST RN 607332-91-2
DICTIONARY FILE UPDATES: 20 OCT 2003 HIGHEST RN 607332-91-2

TSCA INFORMATION NOW CURRENT THROUGH JULY 14, 2003

Please note that search-term pricing does apply when conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. See HELP PROPERTIES for more information. See STNote 27, Searching Properties in the CAS Registry File, for complete details:
http://www.cas.org/ONLINE/STN/STNOTES/stnotes27.pdf

=>

=>

=> d .seq l4 tot

L4 ANSWER 1 OF 56 REGISTRY COPYRIGHT 2003 ACS on STN
RN 429685-04-1 REGISTRY
CN L-Phenylalanine, N-[(1,1-dimethylethoxy)carbonyl]glycylglycylglycyl-N-(methoxymethyl)-, methyl ester (9CI) (CA INDEX NAME)
NTE modified (modifications unspecified)

type	------ location ------		description
modification	Gly-1	-	(1,1-dimethylethoxy) carbonyl<Boc>
modification	Phe-4	-	undetermined modification

SQL 4
SQL 4

SEQ 1 GGGF
====
HITS AT: 1-4

RELATED SEQUENCES AVAILABLE WITH SEQLINK

REFERENCE 1: 136:402018

L4 ANSWER 2 OF 56 REGISTRY COPYRIGHT 2003 ACS on STN
RN 429685-03-0 REGISTRY
CN L-Phenylalanine, N-[(1,1-dimethylethoxy)carbonyl]glycylglycylglycyl-N-[(trimethylsilyl)methyl]-, methyl ester (9CI) (CA INDEX NAME)
NTE modified (modifications unspecified)

type	------ location ------		description
modification	Gly-1	-	(1,1-dimethylethoxy) carbonyl<Boc>
modification	Phe-4	-	undetermined modification

SQL 4
SQL 4

SEQ 1 GGGF
====
HITS AT: 1-4

RELATED SEQUENCES AVAILABLE WITH SEQLINK

REFERENCE 1: 136:402018

L4 ANSWER 3 OF 56 REGISTRY COPYRIGHT 2003 ACS on STN
RN 323178-52-5 REGISTRY
CN L-Phenylalaninamide, 18,18'''''''',18''''''''''''''''-(nitrilotri-2,1-ethanediyl)tris[glycyl-L-ornithylglycylglycylglycyl-N5-(glycyl-L-ornithylglycylglycyl)-L-ornithylglycylglycylglycyl-N5-[glycyl-L-ornithylglycylglycylglycyl-N5-(glycyl-L-ornithylglycylglycyl)-L-ornithylglycylglycyl]-L-ornithylglycylglycylglycyl-N5-[glycyl-L-ornithylglycylglycylglycyl-N5-(glycyl-L-ornithylglycylglycyl)-L-ornithylglycylglycylglycyl-N5-[glycyl-L-ornithylglycylglycylglycyl-N5-(glycyl-L-ornithylglycylglycyl)-L-ornithylglycylglycyl]-L-ornithylglycylglycyl]-L-ornithylglycylglycyl- (9CI) (CA INDEX NAME)
NTE multichain
modified (modifications unspecified)

type	------ location ------		description

bridge	Orn-6	- Gly-4[12']	amide bridge
bridge	Orn-10	- Gly-8[6']	amide bridge
bridge	Orn-14	- Gly-12'''	amide bridge
bridge	Phe-18	- Phe-18'	covalent bridge
bridge	Phe-18	- Phe-18''	covalent bridge
bridge	Orn-6'	- Gly-4[16']	amide bridge
bridge	Orn-10'	- Gly-8[8']	amide bridge
bridge	Orn-14'	- Gly-12[4']	amide bridge
bridge	Phe-18'	- Phe-18''	covalent bridge
bridge	Orn-6''	- Gly-4[20']	amide bridge
bridge	Orn-10''	- Gly-8[10']	amide bridge
bridge	Orn-14''	- Gly-12[5']	amide bridge
bridge	Orn-6'''	- Gly-4[14']	amide bridge
bridge	Orn-10'''	- Gly-8[7']	amide bridge
bridge	Orn-6[4']	- Gly-4[18']	amide bridge
bridge	Orn-10[4']	- Gly-8[9']	amide bridge
bridge	Orn-6[5']	- Gly-4[22']	amide bridge
bridge	Orn-10[5']	- Gly-8[11']	amide bridge
bridge	Orn-6[6']	- Gly-4[13']	amide bridge
bridge	Orn-6[7']	- Gly-4[15']	amide bridge
bridge	Orn-6[8']	- Gly-4[17']	amide bridge
bridge	Orn-6[9']	- Gly-4[19']	amide bridge
bridge	Orn-6[10']	- Gly-4[21']	amide bridge
bridge	Orn-6[11']	- Gly-4[23']	amide bridge
uncommon	Orn-2	-	-
uncommon	Orn-6	-	-
uncommon	Orn-10	-	-
uncommon	Orn-14	-	-
uncommon	Orn-2'	-	-
uncommon	Orn-6'	-	-
uncommon	Orn-10'	-	-
uncommon	Orn-14'	-	-
uncommon	Orn-2''	-	-
uncommon	Orn-6''	-	-
uncommon	Orn-10''	-	-
uncommon	Orn-14''	-	-
uncommon	Orn-2'''	-	-
uncommon	Orn-6'''	-	-
uncommon	Orn-10'''	-	-
uncommon	Orn-2[4']	-	-
uncommon	Orn-6[4']	-	-
uncommon	Orn-10[4']	-	-
uncommon	Orn-2[5']	-	-
uncommon	Orn-6[5']	-	-
uncommon	Orn-10[5']	-	-
uncommon	Orn-2[6']	-	-
uncommon	Orn-6[6']	-	-
uncommon	Orn-2[7']	-	-
uncommon	Orn-6[7']	-	-
uncommon	Orn-2[8']	-	-
uncommon	Orn-6[8']	-	-
uncommon	Orn-2[9']	-	-
uncommon	Orn-6[9']	-	-
uncommon	Orn-2[10']	-	-
uncommon	Orn-6[10']	-	-
uncommon	Orn-2[11']	-	-
uncommon	Orn-6[11']	-	-
uncommon	Orn-2[12']	-	-
uncommon	Orn-2[13']	-	-
uncommon	Orn-2[14']	-	-
uncommon	Orn-2[15']	-	-
uncommon	Orn-2[16']	-	-

```
uncommon          Orn-2[17']      -          -
uncommon          Orn-2[18']      -          -
uncommon          Orn-2[19']      -          -
uncommon          Orn-2[20']      -          -
uncommon          Orn-2[21']      -          -
uncommon          Orn-2[22']      -          -
uncommon          Orn-2[23']      -          -
-------------------------------------------------------------------
SQL  186,18,18,18,12,12,12,8,8,8,8,8,8,4,4,4,
     4,4,4,4,4,4,4,
     4,4,4
SQL  186,18,18,18,12,12,12,8,8,8,8,8,8,4,4,4,
     4,4,4,4,4,4,4,
     4,4,4

SEQ      1 GXGGGXGGGX GGGXGGGF
                      ====
HITS AT:   15-18

SEQ      1 GXGGGXGGGX GGGXGGGF
                      ====
HITS AT:   15-18

SEQ      1 GXGGGXGGGX GGGXGGGF
                      ====
HITS AT:   15-18
```

RELATED SEQUENCES AVAILABLE WITH SEQLINK

REFERENCE 1: 134:147856

L4 ANSWER 4 OF 56 REGISTRY COPYRIGHT 2003 ACS on STN
RN 323178-51-4 REGISTRY
CN L-Phenylalaninamide, 18,18''''''''',18'''''''''''''''''-(nitrilotri-2,1-ethanediyl)tris[N-acetylglycyl-N5-acetyl-L-ornithylglycylglycylglycyl-N5-(N-acetylglycyl-N5-acetyl-L-ornithylglycylglycyl)-L-ornithylglycylglycylglycyl-N5-[N-acetylglycyl-N5-acetyl-L-ornithylglycylglycylglycyl-N5-(N-acetylglycyl-N5-acetyl-L-ornithylglycylglycyl)-L-ornithylglycylglycyl]-L-ornithylglycylglycylglycyl-N5-[N-acetylglycyl-N5-acetyl-L-ornithylglycylglycylglycyl-N5-(N-acetylglycyl-N5-acetyl-L-ornithylglycylglycyl)-L-ornithylglycylglycylglycyl-N5-[N-acetylglycyl-N5-acetyl-L-

ornithylglycylglycylglycyl-N5-(N-acetylglycyl-N5-acetyl-L-ornithylglycylglycyl)-L-ornithylglycylglycyl]-L-ornithylglycylglycyl]-L-ornithylglycylglycyl- (9CI) (CA INDEX NAME)

NTE multichain
modified (modifications unspecified)

type	location			description
bridge	Orn-6	-	Gly-4[12']	amide bridge
bridge	Orn-10	-	Gly-8[6']	amide bridge
bridge	Orn-14	-	Gly-12'''	amide bridge
bridge	Phe-18	-	Phe-18'	covalent bridge
bridge	Phe-18	-	Phe-18''	covalent bridge
bridge	Orn-6'	-	Gly-4[16']	amide bridge
bridge	Orn-10'	-	Gly-8[8']	amide bridge
bridge	Orn-14'	-	Gly-12[4']	amide bridge
bridge	Phe-18'	-	Phe-18''	covalent bridge
bridge	Orn-6''	-	Gly-4[20']	amide bridge
bridge	Orn-10''	-	Gly-8[10']	amide bridge
bridge	Orn-14''	-	Gly-12[5']	amide bridge
bridge	Orn-6'''	-	Gly-4[14']	amide bridge
bridge	Orn-10'''	-	Gly-8[7']	amide bridge
bridge	Orn-6[4']	-	Gly-4[18']	amide bridge
bridge	Orn-10[4']	-	Gly-8[9']	amide bridge
bridge	Orn-6[5']	-	Gly-4[22']	amide bridge
bridge	Orn-10[5']	-	Gly-8[11']	amide bridge
bridge	Orn-6[6']	-	Gly-4[13']	amide bridge
bridge	Orn-6[7']	-	Gly-4[15']	amide bridge
bridge	Orn-6[8']	-	Gly-4[17']	amide bridge
bridge	Orn-6[9']	-	Gly-4[19']	amide bridge
bridge	Orn-6[10']	-	Gly-4[21']	amide bridge
bridge	Orn-6[11']	-	Gly-4[23']	amide bridge
uncommon	Orn-2	-		-
uncommon	Orn-6	-		-
uncommon	Orn-10	-		-
uncommon	Orn-14	-		-
uncommon	Orn-2'	-		-
uncommon	Orn-6'	-		-
uncommon	Orn-10'	-		-
uncommon	Orn-14'	-		-
uncommon	Orn-2''	-		-
uncommon	Orn-6''	-		-
uncommon	Orn-10''	-		-
uncommon	Orn-14''	-		-
uncommon	Orn-2'''	-		-
uncommon	Orn-6'''	-		-
uncommon	Orn-10'''	-		-
uncommon	Orn-2[4']	-		-
uncommon	Orn-6[4']	-		-
uncommon	Orn-10[4']	-		-
uncommon	Orn-2[5']	-		-
uncommon	Orn-6[5']	-		-
uncommon	Orn-10[5']	-		-
uncommon	Orn-2[6']	-		-
uncommon	Orn-6[6']	-		-
uncommon	Orn-2[7']	-		-
uncommon	Orn-6[7']	-		-
uncommon	Orn-2[8']	-		-
uncommon	Orn-6[8']	-		-
uncommon	Orn-2[9']	-		-
uncommon	Orn-6[9']	-		-
uncommon	Orn-2[10']	-		-
uncommon	Orn-6[10']	-		-

```
uncommon          Orn-2[11']      -          -
uncommon          Orn-6[11']      -          -
uncommon          Orn-2[12']      -          -
uncommon          Orn-2[13']      -          -
uncommon          Orn-2[14']      -          -
uncommon          Orn-2[15']      -          -
uncommon          Orn-2[16']      -          -
uncommon          Orn-2[17']      -          -
uncommon          Orn-2[18']      -          -
uncommon          Orn-2[19']      -          -
uncommon          Orn-2[20']      -          -
uncommon          Orn-2[21']      -          -
uncommon          Orn-2[22']      -          -
uncommon          Orn-2[23']      -          -
-------------------------------------------------------------------------
SQL  186,18,18,18,12,12,12,8,8,8,8,8,8,4,4,4,
     4,4,4,4,4,4,4,
     4,4,4
SQL  186,18,18,18,12,12,12,8,8,8,8,8,8,4,4,4,
     4,4,4,4,4,4,4,
     4,4,4

SEQ      1 GXGGGXGGGX GGGXGGGF
                      ====
HITS AT:   15-18

SEQ      1 GXGGGXGGGX GGGXGGGF
                      ====
HITS AT:   15-18

SEQ      1 GXGGGXGGGX GGGXGGGF
                      ====
HITS AT:   15-18
```

RELATED SEQUENCES AVAILABLE WITH SEQLINK

REFERENCE 1: 134:147856

L4 ANSWER 5 OF 56 REGISTRY COPYRIGHT 2003 ACS on STN
RN 323178-50-3 REGISTRY
CN L-Phenylalaninamide, 18,18''''''''',18'''''''''''''''''-(nitrilotri-2,1-ethanediyl)tris[glycyl-L-ornithylglycylglycylglycyl-N5-(glycyl-L-

ornithylglycylglycyl)-L-ornithylglycylglycylglycyl-N5-[glycyl-L-ornithylglycylglycylglycyl-N5-(glycyl-L-ornithylglycylglycyl)-L-ornithylglycylglycyl]-L-ornithylglycylglycylglycyl-N5-[glycyl-L-ornithylglycylglycylglycyl-N5-(glycyl-L-ornithylglycylglycyl)-L-ornithylglycylglycylglycyl-N5-[glycyl-L-ornithylglycylglycylglycylglycyl-N5-(glycyl-L-ornithylglycylglycyl)-L-ornithylglycylglycyl]-L-ornithylglycylglycyl]-L-ornithylglycylglycyl-, trifluoroacetate (9CI) (CA INDEX NAME)

NTE multichain
modified (modifications unspecified)

type	------ location ------		description
bridge	Orn-6	- Gly-4[12']	amide bridge
bridge	Orn-10	- Gly-8[6']	amide bridge
bridge	Orn-14	- Gly-12'''	amide bridge
bridge	Phe-18	- Phe-18'	covalent bridge
bridge	Phe-18	- Phe-18''	covalent bridge
bridge	Orn-6'	- Gly-4[16']	amide bridge
bridge	Orn-10'	- Gly-8[8']	amide bridge
bridge	Orn-14'	- Gly-12[4']	amide bridge
bridge	Phe-18'	- Phe-18''	covalent bridge
bridge	Orn-6''	- Gly-4[20']	amide bridge
bridge	Orn-10''	- Gly-8[10']	amide bridge
bridge	Orn-14''	- Gly-12[5']	amide bridge
bridge	Orn-6'''	- Gly-4[14']	amide bridge
bridge	Orn-10'''	- Gly-8[7']	amide bridge
bridge	Orn-6[4']	- Gly-4[18']	amide bridge
bridge	Orn-10[4']	- Gly-8[9']	amide bridge
bridge	Orn-6[5']	- Gly-4[22']	amide bridge
bridge	Orn-10[5']	- Gly-8[11']	amide bridge
bridge	Orn-6[6']	- Gly-4[13']	amide bridge
bridge	Orn-6[7']	- Gly-4[15']	amide bridge
bridge	Orn-6[8']	- Gly-4[17']	amide bridge
bridge	Orn-6[9']	- Gly-4[19']	amide bridge
bridge	Orn-6[10']	- Gly-4[21']	amide bridge
bridge	Orn-6[11']	- Gly-4[23']	amide bridge
uncommon	Orn-2	-	-
uncommon	Orn-6	-	-
uncommon	Orn-10	-	-
uncommon	Orn-14	-	-
uncommon	Orn-2'	-	-
uncommon	Orn-6'	-	-
uncommon	Orn-10'	-	-
uncommon	Orn-14'	-	-
uncommon	Orn-2''	-	-
uncommon	Orn-6''	-	-
uncommon	Orn-10''	-	-
uncommon	Orn-14''	-	-
uncommon	Orn-2'''	-	-
uncommon	Orn-6'''	-	-
uncommon	Orn-10'''	-	-
uncommon	Orn-2[4']	-	-
uncommon	Orn-6[4']	-	-
uncommon	Orn-10[4']	-	-
uncommon	Orn-2[5']	-	-
uncommon	Orn-6[5']	-	-
uncommon	Orn-10[5']	-	-
uncommon	Orn-2[6']	-	-
uncommon	Orn-6[6']	-	-
uncommon	Orn-2[7']	-	-
uncommon	Orn-6[7']	-	-
uncommon	Orn-2[8']	-	-

uncommon	Orn-6[8']	-	-
uncommon	Orn-2[9']	-	-
uncommon	Orn-6[9']	-	-
uncommon	Orn-2[10']	-	-
uncommon	Orn-6[10']	-	-
uncommon	Orn-2[11']	-	-
uncommon	Orn-6[11']	-	-
uncommon	Orn-2[12']	-	-
uncommon	Orn-2[13']	-	-
uncommon	Orn-2[14']	-	-
uncommon	Orn-2[15']	-	-
uncommon	Orn-2[16']	-	-
uncommon	Orn-2[17']	-	-
uncommon	Orn-2[18']	-	-
uncommon	Orn-2[19']	-	-
uncommon	Orn-2[20']	-	-
uncommon	Orn-2[21']	-	-
uncommon	Orn-2[22']	-	-
uncommon	Orn-2[23']	-	-

SQL 186,18,18,18,12,12,12,8,8,8,8,8,8,**4,4,4,**
4,4,4,4,4,4,
4,4,4

SQL 186,18,18,18,12,12,12,8,8,8,8,8,8,**4,4,4,**
4,4,4,4,4,4,
4,4,4

```
SEQ      1 GXGGGXGGGX GGGXGGGF
                      ====
HITS AT:   15-18

SEQ      1 GXGGGXGGGX GGGXGGGF
                      ====
HITS AT:   15-18

SEQ      1 GXGGGXGGGX GGGXGGGF
                      ====
HITS AT:   15-18
```

RELATED SEQUENCES AVAILABLE WITH SEQLINK

REFERENCE 1: 134:147856

L4 ANSWER 6 OF 56 REGISTRY COPYRIGHT 2003 ACS on STN
RN 323178-48-9 REGISTRY
CN L-Phenylalaninamide, 18,18''''''''',18'''''''''''''''''-(nitrilotri-2,1-ethanediyl)tris[N-acetylglycyl-N5-acetyl-L-ornithylglycylglycylglycyl-N5-(N-acetylglycyl-N5-acetyl-L-ornithylglycylglycyl)-L-ornithylglycylglycylglycyl-N5-[N-acetylglycyl-N5-acetyl-L-ornithylglycylglycylglycyl-N5-(N-acetylglycyl-N5-acetyl-L-ornithylglycylglycyl)-L-ornithylglycylglycyl]-L-ornithylglycylglycylglycyl-N5-[N-acetylglycyl-N5-acetyl-L-ornithylglycylglycylglycyl-N5-(N-acetylglycyl-N5-acetyl-L-ornithylglycylglycyl)-L-ornithylglycylglycyl-N5-[N-acetylglycyl-N5-acetyl-L-ornithylglycylglycylglycyl-N5-(N-acetylglycyl-N5-acetyl-L-ornithylglycylglycyl)-L-ornithylglycylglycyl]-L-ornithylglycylglycyl]-L-ornithylglycylglycylglycyl- (9CI) (CA INDEX NAME)
NTE multichain
modified (modifications unspecified)

type	------ location ------		description
bridge	Orn-6	- Gly-4[12']	amide bridge
bridge	Orn-10	- Gly-8[6']	amide bridge
bridge	Orn-14	- Gly-12'''	amide bridge
bridge	Phe-18	- Phe-18'	covalent bridge
bridge	Phe-18	- Phe-18''	covalent bridge
bridge	Orn-6'	- Gly-4[16']	amide bridge
bridge	Orn-10'	- Gly-8[8']	amide bridge
bridge	Orn-14'	- Gly-12[4']	amide bridge
bridge	Phe-18'	- Phe-18''	covalent bridge
bridge	Orn-6''	- Gly-4[20']	amide bridge
bridge	Orn-10''	- Gly-8[10']	amide bridge
bridge	Orn-14''	- Gly-12[5']	amide bridge
bridge	Orn-6'''	- Gly-4[14']	amide bridge
bridge	Orn-10'''	- Gly-8[7']	amide bridge
bridge	Orn-6[4']	- Gly-4[18']	amide bridge
bridge	Orn-10[4']	- Gly-8[9']	amide bridge
bridge	Orn-6[5']	- Gly-4[22']	amide bridge
bridge	Orn-10[5']	- Gly-8[11']	amide bridge
bridge	Orn-6[6']	- Gly-4[13']	amide bridge
bridge	Orn-6[7']	- Gly-4[15']	amide bridge
bridge	Orn-6[8']	- Gly-4[17']	amide bridge
bridge	Orn-6[9']	- Gly-4[19']	amide bridge
bridge	Orn-6[10']	- Gly-4[21']	amide bridge
bridge	Orn-6[11']	- Gly-4[23']	amide bridge
uncommon	Orn-2	-	-
uncommon	Orn-6	-	-
uncommon	Orn-10	-	-
uncommon	Orn-14	-	-
uncommon	Orn-2'	-	-
uncommon	Orn-6'	-	-
uncommon	Orn-10'	-	-
uncommon	Orn-14'	-	-
uncommon	Orn-2''	-	-
uncommon	Orn-6''	-	-
uncommon	Orn-10''	-	-
uncommon	Orn-14''	-	-
uncommon	Orn-2'''	-	-
uncommon	Orn-6'''	-	-
uncommon	Orn-10'''	-	-
uncommon	Orn-2[4']	-	-
uncommon	Orn-6[4']	-	-
uncommon	Orn-10[4']	-	-
uncommon	Orn-2[5']	-	-

```
uncommon          Orn-6[5']       -          -
uncommon          Orn-10[5']      -          -
uncommon          Orn-2[6']       -          -
uncommon          Orn-6[6']       -          -
uncommon          Orn-2[7']       -          -
uncommon          Orn-6[7']       -          -
uncommon          Orn-2[8']       -          -
uncommon          Orn-6[8']       -          -
uncommon          Orn-2[9']       -          -
uncommon          Orn-6[9']       -          -
uncommon          Orn-2[10']      -          -
uncommon          Orn-6[10']      -          -
uncommon          Orn-2[11']      -          -
uncommon          Orn-6[11']      -          -
uncommon          Orn-2[12']      -          -
uncommon          Orn-2[13']      -          -
uncommon          Orn-2[14']      -          -
uncommon          Orn-2[15']      -          -
uncommon          Orn-2[16']      -          -
uncommon          Orn-2[17']      -          -
uncommon          Orn-2[18']      -          -
uncommon          Orn-2[19']      -          -
uncommon          Orn-2[20']      -          -
uncommon          Orn-2[21']      -          -
uncommon          Orn-2[22']      -          -
uncommon          Orn-2[23']      -          -
-------------------------------------------------------------------------
SQL  186,18,18,18,12,12,12,8,8,8,8,8,8,4,4,4,
     4,4,4,4,4,4,4,
     4,4,4
SQL  186,18,18,18,12,12,12,8,8,8,8,8,8,4,4,4,
     4,4,4,4,4,4,4,
     4,4,4

SEQ      1 GXGGGXGGGX GGGXGGGF
                      ====
HITS AT:   15-18

SEQ      1 GXGGGXGGGX GGGXGGGF
                      ====
HITS AT:   15-18

SEQ      1 GXGGGXGGGX GGGXGGGF
                      ====
HITS AT:   15-18
```

RELATED SEQUENCES AVAILABLE WITH SEQLINK

REFERENCE 1: 134:147856

L4 ANSWER 7 OF 56 REGISTRY COPYRIGHT 2003 ACS on STN
RN 273944-81-3 REGISTRY
CN L-Phenylalanine, N-[4-(1,4,7,10-tetraazacyclododec-1-ylmethyl)benzoyl]glycylglycylglycyl-4-isothiocyanato- (9CI) (CA INDEX NAME)
NTE modified (modifications unspecified)
SQL 4
SQL 4

SEQ 1 GGGF
====
HITS AT: 1-4

RELATED SEQUENCES AVAILABLE WITH SEQLINK

REFERENCE 1: 133:28087

L4 ANSWER 8 OF 56 REGISTRY COPYRIGHT 2003 ACS on STN
RN 273944-80-2 REGISTRY
CN L-Phenylalanine, N-[4-(1,4,8,11-tetraazacyclotetradec-1-ylmethyl)benzoyl]glycylglycylglycyl-4-isothiocyanato- (9CI) (CA INDEX NAME)
NTE modified (modifications unspecified)
SQL 4
SQL 4

SEQ 1 GGGF
====
HITS AT: 1-4

RELATED SEQUENCES AVAILABLE WITH SEQLINK

REFERENCE 1: 133:28087

L4 ANSWER 9 OF 56 REGISTRY COPYRIGHT 2003 ACS on STN
RN 251459-42-4 REGISTRY
CN L-Phenylalaninamide, N-[(1,1-dimethylethoxy)carbonyl]glycylglycylglycyl-N-[4-(hydroxymethyl)phenyl]- (9CI) (CA INDEX NAME)
NTE modified (modifications unspecified)

type	------ location ------		description
modification	Gly-1	-	(1,1-dimethylethoxy) carbonyl<Boc>

SQL 4
SQL 4

SEQ 1 GGGF
====
HITS AT: 1-4

RELATED SEQUENCES AVAILABLE WITH SEQLINK

REFERENCE 1: 132:15631

L4 ANSWER 10 OF 56 REGISTRY COPYRIGHT 2003 ACS on STN
RN 251459-40-2 REGISTRY
CN L-Phenylalaninamide, glycylglycylglycyl-N-[4-[[[[[(1S,9S)-9-ethyl-5-fluoro-2,3,9,10,13,15-hexahydro-9-hydroxy-4-methyl-10,13-dioxo-1H,12H-benzo[de]pyrano[3',4':6,7]indolizino[1,2-b]quinolin-1-yl]amino]carbonyl]oxy]methyl]phenyl]- (9CI) (CA INDEX NAME)
NTE modified (modifications unspecified)
SQL 4
SQL 4

SEQ 1 GGGF
====
HITS AT: 1-4

RELATED SEQUENCES AVAILABLE WITH SEQLINK

REFERENCE 1: 132:15631

L4 ANSWER 11 OF 56 REGISTRY COPYRIGHT 2003 ACS on STN
RN 251459-38-8 REGISTRY
CN L-Phenylalaninamide, N-[(1,1-dimethylethoxy)carbonyl]glycylglycylglycyl-N-[4-[[[[[(1S,9S)-9-ethyl-5-fluoro-2,3,9,10,13,15-hexahydro-9-hydroxy-4-methyl-10,13-dioxo-1H,12H-benzo[de]pyrano[3',4':6,7]indolizino[1,2-b]quinolin-1-yl]amino]carbonyl]oxy]methyl]phenyl]- (9CI) (CA INDEX NAME)
NTE modified (modifications unspecified)

type	------ location ------		description
modification	Gly-1	-	(1,1-dimethylethoxy) carbonyl<Boc>

SQL 4
SQL 4

SEQ 1 GGGF
====
HITS AT: 1-4

RELATED SEQUENCES AVAILABLE WITH SEQLINK

REFERENCE 1: 132:15631

L4 ANSWER 12 OF 56 REGISTRY COPYRIGHT 2003 ACS on STN
RN 251459-36-6 REGISTRY
CN L-Phenylalaninamide, N-[(1,1-dimethylethoxy)carbonyl]glycylglycylglycyl-N-[4-[[[(4-nitrophenoxy)carbonyl]oxy]methyl]phenyl]- (9CI) (CA INDEX NAME)
NTE modified (modifications unspecified)

type	------ location ------		description
modification	Gly-1	-	(1,1-dimethylethoxy) carbonyl<Boc>

SQL 4
SQL 4

SEQ 1 GGGF
====
HITS AT: 1-4

RELATED SEQUENCES AVAILABLE WITH SEQLINK

REFERENCE 1: 132:15631

L4 ANSWER 13 OF 56 REGISTRY COPYRIGHT 2003 ACS on STN

RN 251459-34-4 REGISTRY
CN L-Phenylalanine, N-[(1,1-dimethylethoxy)carbonyl]glycylglycylglycyl- (9CI) (CA INDEX NAME)
NTE modified (modifications unspecified)

type	------ location ------		description
modification	Gly-1	-	(1,1-dimethylethoxy) carbonyl<Boc>

SQL 4
SQL 4

SEQ 1 GGGF
====
HITS AT: 1-4

RELATED SEQUENCES AVAILABLE WITH SEQLINK

REFERENCE 1: 132:15631

L4 ANSWER 14 OF 56 REGISTRY COPYRIGHT 2003 ACS on STN
RN 219721-93-4 REGISTRY
CN L-Phenylalaninamide, glycylglycylglycyl-4-isothiocyanato- (9CI) (CA INDEX NAME)
NTE modified (modifications unspecified)
SQL 4
SQL 4

SEQ 1 GGGF
====
HITS AT: 1-4

RELATED SEQUENCES AVAILABLE WITH SEQLINK

REFERENCE 1: 130:106984

L4 ANSWER 15 OF 56 REGISTRY COPYRIGHT 2003 ACS on STN
RN 180737-56-8 REGISTRY
CN Cyclo(glycylglycylglycyl-4-nitro-L-phenylalanyl) (9CI) (CA INDEX NAME)
NTE cyclic
modified (modifications unspecified)

type	------ location ------		description
modification	Phe-4	-	nitro<N>

SQL 4
SQL 4

SEQ 1 GGGF
====
HITS AT: 1-4

RELATED SEQUENCES AVAILABLE WITH SEQLINK

REFERENCE 1: 132:156840

REFERENCE 2: 125:204516

L4 ANSWER 16 OF 56 REGISTRY COPYRIGHT 2003 ACS on STN
RN 180737-55-7 REGISTRY
CN L-Phenylalanine, glycylglycylglycyl-4-nitro- (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:

CN L-Phenylalanine, N-[N-(N-glycylglycyl)glycyl]-4-nitro-
NTE modified (modifications unspecified)

type	------ location ------		description
modification	Phe-4	-	nitro<N>

SQL 4
SQL 4

SEQ 1 GGGF
====
HITS AT: 1-4

RELATED SEQUENCES AVAILABLE WITH SEQLINK

REFERENCE 1: 132:156840

REFERENCE 2: 125:204516

L4 ANSWER 17 OF 56 REGISTRY COPYRIGHT 2003 ACS on STN
RN 180737-51-3 REGISTRY
CN L-Phenylalanine, N-[N-[2-[(aminoacetyl)amino]ethyl]-N-(trifluoroacetyl)glycyl]-4-nitro-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)
NTE modified (modifications unspecified)

type	------ location ------		description
modification	Gly-2	-	undetermined modification
modification	Gly-3	-	trifluoroacetyl<Tfa>
modification	Phe-4	-	nitro<N>

SQL 4
SQL 4

SEQ 1 GGGF
====
HITS AT: 1-4

RELATED SEQUENCES AVAILABLE WITH SEQLINK

REFERENCE 1: 125:204516

L4 ANSWER 18 OF 56 REGISTRY COPYRIGHT 2003 ACS on STN
RN 176171-19-0 REGISTRY
CN L-Phenylalanine, N-[4-(aminosulfonyl)benzoyl]glycylglycylglycyl-4-chloro- (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN L-Phenylalanine, N-[N-[N-[N-[4-(aminosulfonyl)benzoyl]glycyl]glycyl]glycyl]-4-chloro-
NTE modified (modifications unspecified)

type	------ location ------		description
modification	Gly-1	-	undetermined modification
modification	Phe-4	-	chloro<Cl>

SQL 4
SQL 4

SEQ 1 GGGF
====

HITS AT: 1-4

RELATED SEQUENCES AVAILABLE WITH SEQLINK

REFERENCE 1: 126:141273

REFERENCE 2: 124:317848

L4 ANSWER 19 OF 56 REGISTRY COPYRIGHT 2003 ACS on STN
RN 176171-18-9 REGISTRY
CN L-Phenylalanine, N-[N-[N-[N-[4-(aminosulfonyl)benzoyl]glycyl]glycyl]glycyl
    ]-4-fluoro- (9CI) (CA INDEX NAME)
NTE modified (modifications unspecified)

type	------ location ------		description
modification	Gly-1	-	undetermined modification
modification	Phe-4	-	fluoro<F>

SQL **4**
SQL **4**

SEQ 1 GGGF
       ====
HITS AT: 1-4

RELATED SEQUENCES AVAILABLE WITH SEQLINK

REFERENCE 1: 124:317848

L4 ANSWER 20 OF 56 REGISTRY COPYRIGHT 2003 ACS on STN
RN 176171-17-8 REGISTRY
CN L-Phenylalanine, N-[N-[N-[N-[4-(aminosulfonyl)benzoyl]glycyl]glycyl]glycyl
    ]-4-nitro- (9CI) (CA INDEX NAME)
NTE modified (modifications unspecified)

type	------ location ------		description
modification	Gly-1	-	undetermined modification
modification	Phe-4	-	nitro<N>

SQL **4**
SQL **4**

SEQ 1 GGGF
       ====
HITS AT: 1-4

RELATED SEQUENCES AVAILABLE WITH SEQLINK

REFERENCE 1: 124:317848

L4 ANSWER 21 OF 56 REGISTRY COPYRIGHT 2003 ACS on STN
RN 176171-07-6 REGISTRY
CN L-Phenylalanine, 4-amino-N-[N-[N-[N-[4-(aminosulfonyl)benzoyl]glycyl]glycy
    l]glycyl]- (9CI) (CA INDEX NAME)
NTE modified (modifications unspecified)

type	------ location ------		description
modification	Gly-1	-	undetermined modification
modification	Phe-4	-	amino<NH2>

SQL 4
SQL 4

SEQ 1 GGGF
====
HITS AT: 1-4

RELATED SEQUENCES AVAILABLE WITH SEQLINK

REFERENCE 1: 124:317848

L4 ANSWER 22 OF 56 REGISTRY COPYRIGHT 2003 ACS on STN
RN 167861-74-7 REGISTRY
CN L-Phenylalanine, N-[(1,1-dimethylethoxy)carbonyl]glycylglycylglycyl-4-nitro- (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN L-Phenylalanine, N-[N-[N-[N-[(1,1-dimethylethoxy)carbonyl]glycyl]glycyl]glycyl]-4-nitro-
NTE modified (modifications unspecified)

type	------ location ------		description
modification	Gly-1	-	(1,1-dimethylethoxy) carbonyl<Boc>
modification	Phe-4	-	nitro<N>

SQL 4
SQL 4

SEQ 1 GGGF
====
HITS AT: 1-4

RELATED SEQUENCES AVAILABLE WITH SEQLINK

REFERENCE 1: 132:156840

REFERENCE 2: 125:204516

REFERENCE 3: 123:225940

L4 ANSWER 23 OF 56 REGISTRY COPYRIGHT 2003 ACS on STN
RN 167861-64-5 REGISTRY
CN 1,4,7,10-Tetraazacyclododecane-2,5,8,11-tetrone, 3-[(4-nitrophenyl)methyl]- (9CI) (CA INDEX NAME)
NTE cyclic
modified (modifications unspecified)

type	------ location ------		description
modification	Phe-4	-	nitro<N>

SQL 4
SQL 4

SEQ 1 GGGF
====
HITS AT: 1-4

RELATED SEQUENCES AVAILABLE WITH SEQLINK

REFERENCE 1: 123:225940

L4 ANSWER 24 OF 56 REGISTRY COPYRIGHT 2003 ACS on STN

RN 167861-63-4 REGISTRY
CN 1,4,7,10-Tetraazacyclododecane-2,5,8,11-tetrone, 9-[(4-nitrophenyl)methyl]-
1-(trifluoroacetyl)- (9CI) (CA INDEX NAME)
NTE cyclic
modified (modifications unspecified)

type	------ location ------		description
modification	Gly-3	-	trifluoroacetyl<Tfa>
modification	Phe-4	-	nitro<N>

SQL 4
SQL 4

SEQ 1 GGGF
====
HITS AT: 1-4

RELATED SEQUENCES AVAILABLE WITH SEQLINK

REFERENCE 1: 123:225940

L4 ANSWER 25 OF 56 REGISTRY COPYRIGHT 2003 ACS on STN
RN 167861-62-3 REGISTRY
CN L-Phenylalanine, N-[N-[2-[(aminoacetyl)amino]ethyl]-N-
(trifluoroacetyl)glycyl]-4-nitro- (9CI) (CA INDEX NAME)
NTE modified (modifications unspecified)

type	------ location ------		description
modification	Gly-2	-	undetermined modification
modification	Gly-3	-	trifluoroacetyl<Tfa>
modification	Phe-4	-	nitro<N>

SQL 4
SQL 4

SEQ 1 GGGF
====
HITS AT: 1-4

RELATED SEQUENCES AVAILABLE WITH SEQLINK

REFERENCE 1: 125:204516

REFERENCE 2: 123:225940

L4 ANSWER 26 OF 56 REGISTRY COPYRIGHT 2003 ACS on STN
RN 167861-61-2 REGISTRY
CN L-Phenylalanine, N-[N-[2-[[[[(1,1-dimethylethoxy)carbonyl]amino]acetyl]ami
no]ethyl]-N-(trifluoroacetyl)glycyl]-4-nitro-, 1,1-dimethylethyl ester
(9CI) (CA INDEX NAME)
NTE modified (modifications unspecified)

type	------ location ------		description
modification	Gly-1	-	(1,1-dimethylethoxy) carbonyl<Boc>
modification	Gly-2	-	undetermined modification
modification	Gly-3	-	trifluoroacetyl<Tfa>
modification	Phe-4	-	nitro<N>

SQL 4
SQL 4

SEQ 1 GGGF
====
HITS AT: 1-4

RELATED SEQUENCES AVAILABLE WITH SEQLINK

REFERENCE 1: 125:204516

REFERENCE 2: 123:225940

L4 ANSWER 27 OF 56 REGISTRY COPYRIGHT 2003 ACS on STN
RN 165682-42-8 REGISTRY
CN L-Phenylalanine, N-[N-[N-[N-[4-(aminosulfonyl)benzoyl]glycyl]glycyl]glycyl
]- (9CI) (CA INDEX NAME)
NTE modified (modifications unspecified)

type	------ location ------		description
modification	Gly-1	-	undetermined modification

SQL 4
SQL 4

SEQ 1 GGGF
====
HITS AT: 1-4

RELATED SEQUENCES AVAILABLE WITH SEQLINK

REFERENCE 1: 124:317848

REFERENCE 2: 123:106470

L4 ANSWER 28 OF 56 REGISTRY COPYRIGHT 2003 ACS on STN
RN 149226-84-6 REGISTRY
CN L-Phenylalaninamide, glycylglycylglycyl-4-nitro-, mono(trifluoroacetate)
(9CI) (CA INDEX NAME)
NTE modified

type	------ location ------		description
terminal mod.	Phe-4	-	C-terminal amide
modification	-	-	undetermined modification
modification	Phe-4	-	nitro<N>

SQL 4
SQL 4

SEQ 1 GGGF
====
HITS AT: 1-4

RELATED SEQUENCES AVAILABLE WITH SEQLINK
RN 149226-84-6 REGISTRY

SEQ 1 GGGF
====
HITS AT: 1-4

RELATED SEQUENCES AVAILABLE WITH SEQLINK

SEQ 1 GGGF

```
          ====
HITS AT:   1-4

**RELATED SEQUENCES AVAILABLE WITH SEQLINK**

REFERENCE   1:  119:90207

L4   ANSWER 29 OF 56  REGISTRY  COPYRIGHT 2003 ACS on STN
RN   149226-83-5  REGISTRY
CN   L-Phenylalaninamide, glycylglycylglycyl-4-nitro- (9CI)  (CA INDEX NAME)
NTE  modified
-------------------------------------------------------------------------
 type            ------ location ------         description
-------------------------------------------------------------------------
terminal mod.    Phe-4           -         C-terminal amide
modification     Phe-4           -         nitro<N>
-------------------------------------------------------------------------
SQL  4
SQL  4

SEQ      1 GGGF
           ====
HITS AT:   1-4

**RELATED SEQUENCES AVAILABLE WITH SEQLINK**

L4   ANSWER 30 OF 56  REGISTRY  COPYRIGHT 2003 ACS on STN
RN   149206-85-9  REGISTRY
CN   L-Phenylalaninamide, N-[(1,1-dimethylethoxy)carbonyl]glycylglycylglycyl-4-
     nitro- (9CI)  (CA INDEX NAME)
NTE  modified
-------------------------------------------------------------------------
 type            ------ location ------         description
-------------------------------------------------------------------------
terminal mod.    Phe-4           -         C-terminal amide
modification     Gly-1           -         (1,1-dimethylethoxy) carbonyl<Boc>
modification     Phe-4           -         nitro<N>
-------------------------------------------------------------------------
SQL  4
SQL  4

SEQ      1 GGGF
           ====
HITS AT:   1-4

**RELATED SEQUENCES AVAILABLE WITH SEQLINK**

REFERENCE   1:  119:90207

L4   ANSWER 31 OF 56  REGISTRY  COPYRIGHT 2003 ACS on STN
RN   135612-66-7  REGISTRY
CN   L-Phenylalaninamide, N-carboxyglycylglycylglycyl-N-(4-nitrophenyl)- (9CI)
     (CA INDEX NAME)
NTE  modified (modifications unspecified)
-------------------------------------------------------------------------
 type            ------ location ------         description
-------------------------------------------------------------------------
modification     Gly-1           -         undetermined modification
-------------------------------------------------------------------------
SQL  4
SQL  4

SEQ      1 GGGF
```

```
          ====
HITS AT:   1-4

**RELATED SEQUENCES AVAILABLE WITH SEQLINK**

REFERENCE   1:  116:17641

L4   ANSWER 32 OF 56  REGISTRY  COPYRIGHT 2003 ACS on STN
RN   134002-70-3  REGISTRY
CN   L-Phenylalaninamide, glycylglycylglycyl-N-[4-(ethoxycarbonyl)phenyl]-,
     monohydrochloride (9CI)  (CA INDEX NAME)
NTE  modified (modifications unspecified)
-------------------------------------------------------------------------
 type            ------ location ------          description
-------------------------------------------------------------------------
modification        -             -          undetermined modification
-------------------------------------------------------------------------
SQL  4
SQL  4

SEQ      1 GGGF
           ====
HITS AT:   1-4

**RELATED SEQUENCES AVAILABLE WITH SEQLINK**

REFERENCE   1:  114:240639

L4   ANSWER 33 OF 56  REGISTRY  COPYRIGHT 2003 ACS on STN
RN   133954-78-6  REGISTRY
CN   L-Phenylalaninamide, glycylglycylglycyl-N-[4-(ethoxycarbonyl)phenyl]-
     (9CI)  (CA INDEX NAME)
NTE  modified (modifications unspecified)
SQL  4
SQL  4

SEQ      1 GGGF
           ====
HITS AT:   1-4

**RELATED SEQUENCES AVAILABLE WITH SEQLINK**

REFERENCE   1:  114:240639

L4   ANSWER 34 OF 56  REGISTRY  COPYRIGHT 2003 ACS on STN
RN   110672-90-7  REGISTRY
CN   L-Phenylalanine, N-[N-[N-[N-(9H-pyrido[3,4-b]indol-3-
     ylcarbonyl)glycyl]glycyl]glycyl]-, methyl ester (9CI)  (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN   9H-Pyrido[3,4-b]indole, L-phenylalanine deriv.
NTE  modified (modifications unspecified)
-------------------------------------------------------------------------
 type            ------ location ------          description
-------------------------------------------------------------------------
modification     Gly-1          -          undetermined modification
-------------------------------------------------------------------------
SQL  4
SQL  4

SEQ      1 GGGF
           ====
HITS AT:   1-4
```

RELATED SEQUENCES AVAILABLE WITH SEQLINK

REFERENCE 1: 107:198895

L4 ANSWER 35 OF 56 REGISTRY COPYRIGHT 2003 ACS on STN
RN 104724-44-9 REGISTRY
CN L-Phenylalanine, N-[N-[N-[(5-fluoro-3,4-dihydro-2,4-dioxo-1(2H)-pyrimidinyl)acetyl]glycyl]glycyl]- (9CI) (CA INDEX NAME)
NTE modified (modifications unspecified)
SQL **4**
SQL **4**

SEQ 1 GGGF
====
HITS AT: 1-4

RELATED SEQUENCES AVAILABLE WITH SEQLINK

REFERENCE 1: 105:173025

L4 ANSWER 36 OF 56 REGISTRY COPYRIGHT 2003 ACS on STN
RN 90409-74-8 REGISTRY
CN L-Phenylalaninamide, N-(2-methyl-1-oxo-2-propenyl)glycylglycylglycyl-N-(4-nitrophenyl)-, polymer with 2-methyl-2-propenoic acid (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN 2-Propenoic acid, 2-methyl-, polymer with N-(2-methyl-1-oxo-2-propenyl)glycylglycylglycyl-N-(4-nitrophenyl)-L-phenylalaninamide (9CI)
NTE homopolymer
modified (modifications unspecified)

type	------ location ------		description
modification	-	-	undetermined modification
modification	Gly-1	-	2-methyl-1-oxo-2-propenyl

SQL **4**
SQL **4**

SEQ 1 GGGF
====
HITS AT: 1-4

RELATED SEQUENCES AVAILABLE WITH SEQLINK
RN 90409-74-8 REGISTRY

SEQ 1 GGGF
====
HITS AT: 1-4

RELATED SEQUENCES AVAILABLE WITH SEQLINK

SEQ 1 GGGF
====
HITS AT: 1-4

RELATED SEQUENCES AVAILABLE WITH SEQLINK

REFERENCE 1: 101:12062

L4 ANSWER 37 OF 56 REGISTRY COPYRIGHT 2003 ACS on STN
RN 84814-48-2 REGISTRY
CN Phenylalanine, N-[N-(N-glycylglycyl)glycyl]-, methyl ester, monoacetate

(9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN DL-Phenylalanine, N-[N-(N-glycylglycyl)glycyl]-, methyl ester, monoacetate
NTE modified (modifications unspecified)

type	------ location ------		description
modification	-	-	undetermined modification

SQL **4**
SQL **4**

SEQ 1 GGGF
====
HITS AT: 1-4

RELATED SEQUENCES AVAILABLE WITH SEQLINK
RN 84814-48-2 REGISTRY

SEQ 1 GGGF
====
HITS AT: 1-4

RELATED SEQUENCES AVAILABLE WITH SEQLINK

SEQ 1 GGGF
====
HITS AT: 1-4

RELATED SEQUENCES AVAILABLE WITH SEQLINK

REFERENCE 1: 98:107729

L4 ANSWER 38 OF 56 REGISTRY COPYRIGHT 2003 ACS on STN
RN 84814-47-1 REGISTRY
CN Phenylalanine, N-[N-(N-glycylglycyl)glycyl]-, methyl ester (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN DL-Phenylalanine, N-[N-(N-glycylglycyl)glycyl]-, methyl ester
NTE modified (modifications unspecified)
SQL **4**
SQL **4**

SEQ 1 GGGF
====
HITS AT: 1-4

RELATED SEQUENCES AVAILABLE WITH SEQLINK

REFERENCE 1: 98:107729

L4 ANSWER 39 OF 56 REGISTRY COPYRIGHT 2003 ACS on STN
RN 78682-74-3 REGISTRY
CN L-Phenylalanine, N-[N-[N-(N-acetylglycyl)glycyl]glycyl]-, methyl ester (9CI) (CA INDEX NAME)
OTHER NAMES:
CN N-Acetylglycylglycylglycyl-L-phenylalanine methyl ester
NTE modified

type	------ location ------		description
terminal mod.	Gly-1	-	N-acetyl

SQL 4
SQL 4

SEQ 1 GGGF
====
HITS AT: 1-4

RELATED SEQUENCES AVAILABLE WITH SEQLINK

REFERENCE 1: 116:17641

REFERENCE 2: 95:76069

L4 ANSWER 40 OF 56 REGISTRY COPYRIGHT 2003 ACS on STN
RN 78682-72-1 REGISTRY
CN L-Phenylalanine, N-[N-(N-glycylglycyl)glycyl]-, methyl ester, monohydrobromide (9CI) (CA INDEX NAME)
NTE modified (modifications unspecified)

type	------ location ------		description
modification	-	-	undetermined modification

SQL 4
SQL 4

SEQ 1 GGGF
====
HITS AT: 1-4

RELATED SEQUENCES AVAILABLE WITH SEQLINK

REFERENCE 1: 95:76069

L4 ANSWER 41 OF 56 REGISTRY COPYRIGHT 2003 ACS on STN
RN 75853-32-6 REGISTRY
CN L-Phenylalanine, glycylglycylglycyl- (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN Alanine, N-[N-(N-glycylglycyl)glycyl]-3-phenyl- (7CI)
CN L-Phenylalanine, N-[N-(N-glycylglycyl)glycyl]-
OTHER NAMES:
CN 6: PN: WO02087632 PAGE: 21 unclaimed sequence
CN 88: PN: WO03045309 SEQID: 2 unclaimed sequence
SQL 4
SQL 4

SEQ 1 GGGF
====
HITS AT: 1-4

RELATED SEQUENCES AVAILABLE WITH SEQLINK

REFERENCE 1: 139:30773

REFERENCE 2: 137:348514

REFERENCE 3: 132:326152

REFERENCE 4: 94:1489

REFERENCE 5: 61:69405

L4 ANSWER 42 OF 56 REGISTRY COPYRIGHT 2003 ACS on STN

RN 75501-77-8 REGISTRY
CN L-Phenylalaninamide, N-[(phenylmethoxy)carbonyl]glycylglycylglycyl- (9CI) (CA INDEX NAME)
OTHER NAMES:
CN Z-Gly-Gly-Gly-Phe-NH2
NTE modified

type	------ location ------		description
terminal mod.	Phe-4	-	C-terminal amide
modification	Gly-1	-	(phenylmethoxy)carbonyl<Z>

SQL 4
SQL 4

SEQ 1 GGGF
====
HITS AT: 1-4

RELATED SEQUENCES AVAILABLE WITH SEQLINK

REFERENCE 1: 93:217111

L4 ANSWER 43 OF 56 REGISTRY COPYRIGHT 2003 ACS on STN
RN 74578-54-4 REGISTRY
CN L-Phenylalaninamide, N-[(phenylmethoxy)carbonyl]glycylglycylglycyl-N-(4-nitrophenyl)- (9CI) (CA INDEX NAME)
NTE modified (modifications unspecified)

type	------ location ------		description
modification	Gly-1	-	(phenylmethoxy)carbonyl<Z>

SQL 4
SQL 4

SEQ 1 GGGF
====
HITS AT: 1-4

RELATED SEQUENCES AVAILABLE WITH SEQLINK

REFERENCE 1: 93:95630

L4 ANSWER 44 OF 56 REGISTRY COPYRIGHT 2003 ACS on STN
RN 74569-71-4 REGISTRY
CN L-Phenylalaninamide, glycylglycylglycyl-N-(4-nitrophenyl)- (9CI) (CA INDEX NAME)
NTE modified (modifications unspecified)
SQL 4
SQL 4

SEQ 1 GGGF
====
HITS AT: 1-4

RELATED SEQUENCES AVAILABLE WITH SEQLINK

REFERENCE 1: 93:101418

REFERENCE 2: 93:95630

L4 ANSWER 45 OF 56 REGISTRY COPYRIGHT 2003 ACS on STN

RN 67877-92-3 REGISTRY
CN L-Phenylalaninamide, N-(3-carboxy-1-oxopropyl)glycylglycylglycyl-N-(4-nitrophenyl)- (9CI) (CA INDEX NAME)
NTE modified (modifications unspecified)

type	------ location ------		description
modification	Gly-1	-	3-carboxy-1-oxopropyl<Suc>

SQL 4
SQL 4

SEQ 1 GGGF
====
HITS AT: 1-4

RELATED SEQUENCES AVAILABLE WITH SEQLINK

REFERENCE 1: 93:95630

REFERENCE 2: 89:175672

L4 ANSWER 46 OF 56 REGISTRY COPYRIGHT 2003 ACS on STN
RN 61435-98-1 REGISTRY
CN L-Phenylalaninamide, N-(2-methyl-1-oxo-2-propenyl)glycylglycylglycyl-N-(4-nitrophenyl)-, polymer with N-(2-hydroxypropyl)-2-methyl-2-propenamide (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN 2-Propenamide, N-(2-hydroxypropyl)-2-methyl-, polymer with N-(2-methyl-1-oxo-2-propenyl)glycylglycylglycyl-N-(4-nitrophenyl)-L-phenylalaninamide (9CI)
NTE homopolymer
modified (modifications unspecified)

type	------ location ------		description
modification	-	-	undetermined modification
modification	Gly-1	-	2-methyl-1-oxo-2-propenyl

SQL 4
SQL 4

SEQ 1 GGGF
====
HITS AT: 1-4

RELATED SEQUENCES AVAILABLE WITH SEQLINK
RN 61435-98-1 REGISTRY

SEQ 1 GGGF
====
HITS AT: 1-4

RELATED SEQUENCES AVAILABLE WITH SEQLINK

SEQ 1 GGGF
====
HITS AT: 1-4

RELATED SEQUENCES AVAILABLE WITH SEQLINK

REFERENCE 1: 114:192393

REFERENCE 2: 101:12062

REFERENCE 3: 86:13107

L4 ANSWER 47 OF 56 REGISTRY COPYRIGHT 2003 ACS on STN
RN 61435-72-1 REGISTRY
CN L-Phenylalaninamide, N-(2-methyl-1-oxo-2-propenyl)glycylglycylglycyl-N-(4-nitrophenyl)- (9CI) (CA INDEX NAME)
NTE modified (modifications unspecified)

type	------ location ------		description
modification	Gly-1	-	2-methyl-1-oxo-2-propenyl

SQL 4
SQL 4

SEQ 1 GGGF
====
HITS AT: 1-4

RELATED SEQUENCES AVAILABLE WITH SEQLINK

REFERENCE 1: 86:13107

L4 ANSWER 48 OF 56 REGISTRY COPYRIGHT 2003 ACS on STN
RN 58688-92-9 REGISTRY
CN L-Phenylalanine, N-[N-[N-(N-benzoylglycyl)glycyl]glycyl]- (9CI) (CA INDEX NAME)
NTE modified (modifications unspecified)

type	------ location ------		description
modification	Gly-1	-	benzoyl<Bz>

SQL 4
SQL 4

SEQ 1 GGGF
====
HITS AT: 1-4

RELATED SEQUENCES AVAILABLE WITH SEQLINK

REFERENCE 1: 112:3104

REFERENCE 2: 84:101503

L4 ANSWER 49 OF 56 REGISTRY COPYRIGHT 2003 ACS on STN
RN 47458-92-4 REGISTRY
CN L-Phenylalanine, N-[N-(N-glycylglycyl)glycyl]-, methyl ester (9CI) (CA INDEX NAME)
NTE modified (modifications unspecified)
SQL 4
SQL 4

SEQ 1 GGGF
====
HITS AT: 1-4

RELATED SEQUENCES AVAILABLE WITH SEQLINK

REFERENCE 1: 113:41278

L4 ANSWER 50 OF 56 REGISTRY COPYRIGHT 2003 ACS on STN
RN 37923-00-5 REGISTRY
CN L-Phenylalanine, N-[N-[N-[[5-(dimethylamino)-1-naphthalenyl]sulfonyl]glycyl]glycyl]glycyl]- (9CI) (CA INDEX NAME)
OTHER NAMES:
CN N-Dansylglycylglycylglycyl-L-phenylalanine
NTE modified (modifications unspecified)

type	------ location ------		description
modification	Gly-1	-	[5-(dimethylamino)-1-naphthalenyl]sulfonyl

SQL 4
SQL 4

SEQ 1 GGGF
====
HITS AT: 1-4

RELATED SEQUENCES AVAILABLE WITH SEQLINK

REFERENCE 1: 98:139670

REFERENCE 2: 77:98334

L4 ANSWER 51 OF 56 REGISTRY COPYRIGHT 2003 ACS on STN
RN 33492-41-0 REGISTRY
CN Alanine, N-[N-(N-glycylglycyl)glycyl]-3-phenyl-, methyl ester, monoacetate, L- (8CI) (CA INDEX NAME)
NTE modified (modifications unspecified)

type	------ location ------		description
modification	-	-	undetermined modification

SQL 4
SQL 4

SEQ 1 GGGF
====
HITS AT: 1-4

RELATED SEQUENCES AVAILABLE WITH SEQLINK
RN 33492-41-0 REGISTRY

SEQ 1 GGGF
====
HITS AT: 1-4

RELATED SEQUENCES AVAILABLE WITH SEQLINK

SEQ 1 GGGF
====
HITS AT: 1-4

RELATED SEQUENCES AVAILABLE WITH SEQLINK

REFERENCE 1: 75:98805

L4 ANSWER 52 OF 56 REGISTRY COPYRIGHT 2003 ACS on STN
RN 33374-78-6 REGISTRY

CN L-Phenylalanine, N-[N-[N-[N-[(phenylmethoxy)carbonyl]glycyl]glycyl]glycyl]-
, methyl ester (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN Alanine, N-[N-[N-(N-carboxyglycyl)glycyl]glycyl]-3-phenyl-, N-benzyl
methyl ester (7CI)
CN Alanine, N-[N-[N-(N-carboxyglycyl)glycyl]glycyl]-3-phenyl-, N-benzyl
methyl ester, L- (8CI)
NTE modified (modifications unspecified)

type	------ location ------		description
modification	Gly-1	-	(phenylmethoxy)carbonyl<Z>

SQL **4**
SQL **4**

SEQ 1 GGGF
====
HITS AT: 1-4

RELATED SEQUENCES AVAILABLE WITH SEQLINK

REFERENCE 1: 95:76069

REFERENCE 2: 75:98805

REFERENCE 3: 61:69405

L4 ANSWER 53 OF 56 REGISTRY COPYRIGHT 2003 ACS on STN
RN 26108-22-5 REGISTRY
CN Alanine, N-[N-[N-(N-carboxyglycyl)glycyl]glycyl]-3-phenyl-, N-benzyl
3-(4-pyridyl)propyl ester, L- (8CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN 4-Pyridinepropanol, ester with N-[N-[N-(N-carboxyglycyl)glycyl]glycyl]-3-
phenyl-L-alanine N-benzyl ester (8CI)
NTE modified (modifications unspecified)

type	------ location ------		description
modification	Gly-1	-	(phenylmethoxy)carbonyl<Z>

SQL **4**
SQL **4**

SEQ 1 GGGF
====
HITS AT: 1-4

RELATED SEQUENCES AVAILABLE WITH SEQLINK

REFERENCE 1: 72:18693

L4 ANSWER 54 OF 56 REGISTRY COPYRIGHT 2003 ACS on STN
RN 25894-99-9 REGISTRY
CN Phenylalanine, N-[N-(N-glycylglycyl)glycyl]- (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN Alanine, N-[N-(N-glycylglycyl)glycyl]-3-phenyl-, DL- (8CI)
CN DL-Phenylalanine, N-[N-(N-glycylglycyl)glycyl]-
OTHER NAMES:
CN Triglycyl-DL-phenylalanine
SQL **4**
SQL **4**

SEQ 1 GGGF
====
HITS AT: 1-4

RELATED SEQUENCES AVAILABLE WITH SEQLINK

REFERENCE 1: 73:74039

L4 ANSWER 55 OF 56 REGISTRY COPYRIGHT 2003 ACS on STN
RN 24848-63-3 REGISTRY
CN L-Phenylalanine, N-[N-[N-[N-[(phenylmethoxy)carbonyl]glycyl]glycyl]glycyl]-
(9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN Alanine, N-[N-[N-(N-carboxyglycyl)glycyl]glycyl]-3-phenyl-, N-benzyl ester
(7CI)
NTE modified (modifications unspecified)

type	------ location ------		description
modification	Gly-1	-	(phenylmethoxy)carbonyl<Z>

SQL 4
SQL 4

SEQ 1 GGGF
====
HITS AT: 1-4

RELATED SEQUENCES AVAILABLE WITH SEQLINK

REFERENCE 1: 117:70314

REFERENCE 2: 104:6163

REFERENCE 3: 84:101503

REFERENCE 4: 61:69405

L4 ANSWER 56 OF 56 REGISTRY COPYRIGHT 2003 ACS on STN
RN 3017-43-4 REGISTRY
CN 1,4,7,10-Tetraazacyclododecane-2,5,8,11-tetrone, 3-benzyl- (7CI, 8CI) (CA
INDEX NAME)
NTE cyclic
SQL 4
SQL 4

SEQ 1 GGGF
====
HITS AT: 1-4

RELATED SEQUENCES AVAILABLE WITH SEQLINK

REFERENCE 1: 62:52017

REFERENCE 2: 62:52016